

LOCUS MAP
Not to Scale

SITE DEVELOPMENT PLANS

PROPOSED RESIDENTIAL DEVELOPMENT

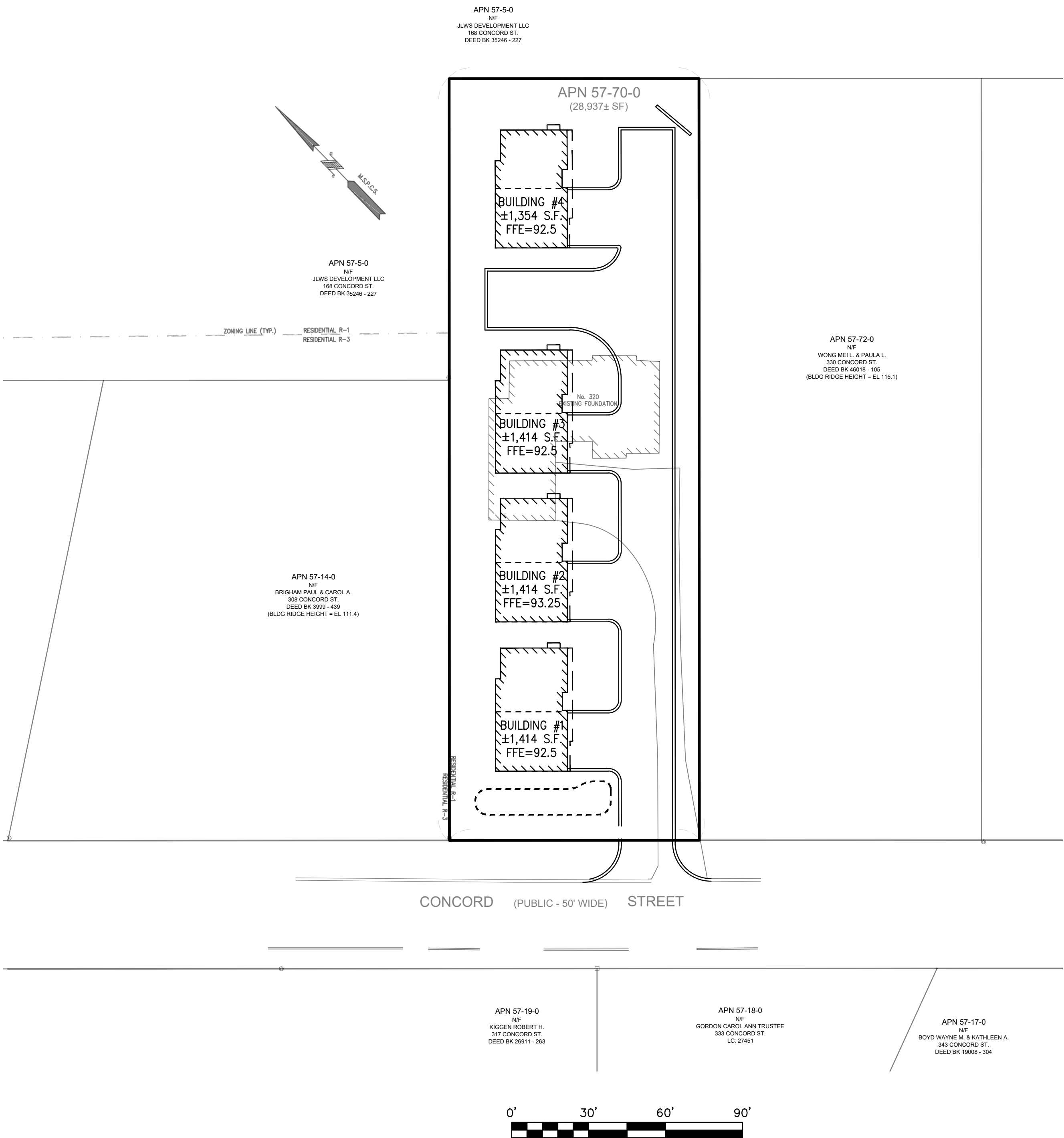
320 CONCORD STREET

IN

ROCKLAND, MASSACHUSETTS

Drawing Index:

No.	Drawing Title
CS-1	COVER SHEET
L-1	LEGEND, ABBREVIATIONS & GENERAL NOTES
EX-1	EXISTING CONDITIONS PLAN
C-1	SITE LAYOUT PLAN
C-2	GRADING AND DRAINAGE PLAN
C-3	UTILITY PLAN
ESC-1	EROSION AND SEDIMENT CONTROL PLAN
T-1	FIRE TRUCK TURNING PLAN
D-1 - D-6	CONSTRUCTION DETAILS



Owner/Applicant:

WALL STREET DEVELOPMENT CORP.
2 WARTHIN CIRCLE
NORWOOD, MA 02062

Engineer/Surveyor:

MCKENZIE ENGINEERING GROUP, INC.
150 LONGWATER DRIVE
SUITE 101
NORWELL, MASSACHUSETTS 02061

ISSUE DATE: OCTOBER 7, 2021
REVISED: JANUARY 3, 2022

REV	DATE	DESCRIPTION	BY	APP
1	11/30/21	DRAINAGE & UTILITIES	ESS	BCM
2	1/3/22	PEER REVIEW LETTER	ESS	BCM

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SITE DEVELOPMENT PLANS
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS



OWNERS/APPLICANT:
WALL STREET DEVELOPMENT
CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

PERMIT PLAN SET

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	OCTOBER 7, 2021
SCALE:	1" = 30'
PROJECT NO.:	221-187

DWG. TITLE:
COVER SHEET

DWG. NO.:
CS-1

ABBREVIATIONS

ABAN	ABANDONED
ACP	ASBESTOS CEMENT PIPE
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
ASPH	ASPHALT
ACOMP	ASPHALT COATED CORRUGATED METAL PIPE
B	BOLLARD
BD	BOUND
BLDG	BUILDING
BIT CONC	BITUMINOUS CONCRETE
BM	BENCHMARK
BS	BOTTOM OF SLOPE
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
C&C	CUT AND CAPPED
CB/DH	CONC. BOUND/DRILL HOLE
CB/EPLP	CB/ESCUTCHEON
OCB	CAPE COD BERM
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CO	CLEAN OUT
CONC	CONCRETE
COND	CONDUIT
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYLENE PIPE
CS	COMBINED SEWER
CSMH	COMBINED SEWER MANHOLE
CULV	CULVERT
Δ	DELTA ANGLE
D	DRAIN
DCB	DOUBLE CATCH BASIN
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
E	ELECTRIC
ECC	EXTRUDED CONCRETE CURB
ELEV	ELEVATION
EMH	ELECTRIC MANHOLE
E/T/C	ELECTRIC, TELEPHONE, & CABLE TV
EW	END WALL
EXIST	EXISTING
FAB	FIRE ALARM BOX
FES	FLARED END SECTION
FND	FOUND
FND	FOUNDATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
G	GAS
GD	GROUND
GG	GAS GATE
GIP	GALVANIZED IRON PIPE
GP	GUARD POST
GS	GAS SERVICE
GR	GUARD RAIL
GRAN.	GRANITE
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HOR	HORIZONTAL
HP	HIGH PRESSURE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT
I.P.	IRON PIN
I.R.	IRON ROD
L	LEAD
LSA	LANDSCAPED AREA
LP	LIGHT POLE
MAX	MAXIMUM
MC	METAL COVER
MCC	MONOLITHIC CONCRETE CURB
MH	MANHOLE
MHB	MASS. HIGHWAY BOUND
MIN	MINIMUM
MLP	METAL LIGHT POLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OHW	OVERHEAD WIRE
PB	PULL BOX
PE	POLYETHYLENE PIPE
P	PROPERTY LINE
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE PIPE
PWT	PAVEMENT
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
S	SEWER
SB	STONE BOUND
SB/DH	STONE BOUND/DRILL HOLE
SCE	SLOPED GRANITE EDGING
SMH	SEWER MANHOLE
STA	STATION
SS	SEWER SERVICE
STL	STEEL
SW	SIDEWALK
T	TELEPHONE
TCB	TRAFFIC CONTROL BOX
TL	TRAFFIC LIGHT
TMH	TELEPHONE MANHOLE
T	TREE
TRANS	TRANSFORMER
TS	TOP OF SLOPE
TSV	TAPPING SLEEVE, VALVE AND BOX
TYP	TYPICAL
UP	UTILITY POLE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
W	WATER MAIN
WG	WATER GATE

LEGEND

Existing	Proposed	Description
x 100.50 100.50 100.00 100.50	+ 100.50 100.50 100.00 100.50	SPOT ELEVATIONS TOP & BOTTOM ELEVATIONS SPOT ELEVATIONS WITH LEADER
		HYDRANT
		WATER GATE VALVE
		WELL
		GAS GATE
		ELECTRIC HANDHOLE
		LIGHT POLE
		UTILITY POLE
		GUY POLE
		GUY ANCHOR
		DRAIN MANHOLE
		SEWER MANHOLE
		CATCH BASIN
		DOUBLE CATCH BASIN
		TEST PIT
		BORING
		SIGN SINGLE POST
		GRANITE OR CONCRETE BOUND
		WETLAND FLAG
		EXISTING BUILDING
		PROPOSED BUILDING
		MAJOR CONTOUR
		MINOR CONTOUR
		CHAINLINK FENCE
		CABLE TV LINE
		ELECTRIC, TELEPHONE, CABLE TV DUCTBANK
		OVERHEAD ELECTRIC
		NATURAL GAS LINE
		SANITARY SEWER MAIN
		DRAIN PIPE
		TELEPHONE LINE
		WATER MAIN
		FIRE PROTECTION LINE
		RETAINING WALL
		TREELINE
		HAYBALE & SILT FENCE
		LIMIT BORDERING VEGETATED WETLAND RESOURCE(1)
		100' WETLAND BUFFER ZONE

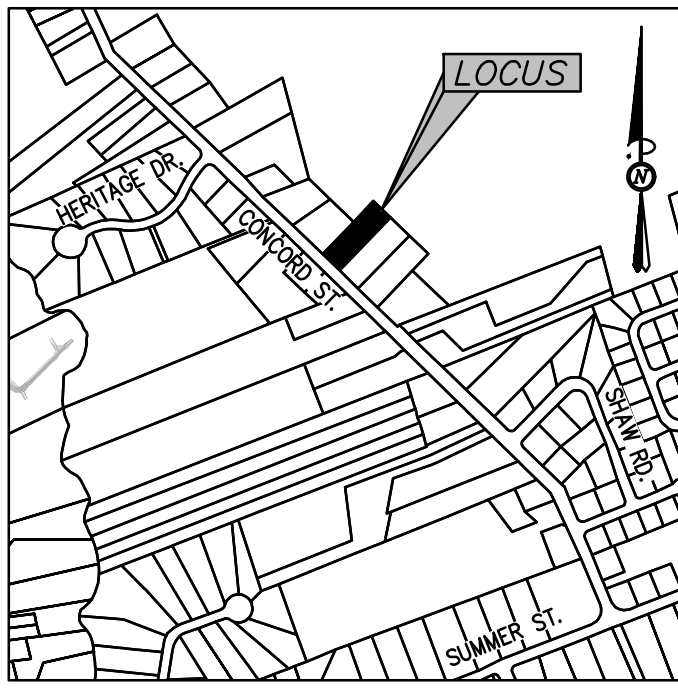
GENERAL NOTES

- SURVEY NOTES:
- LOCUS IS SHOWN AS PARCEL NUMBER 57-70 ON THE TOWN OF ROCKLAND ASSESSORS MAPS.
 - DEED TO LOCUS IS RECORDED IN THE PLYMOUTH COUNTY REGISTRY OF DEEDS AT BOOK 54287, PAGE 47.
 - THIS SURVEY WAS MADE ON THE GROUND IN SEPTEMBER OF 2021 BY MCKENZIE ENGINEERING GROUP, INC.
 - ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
 - THE BEARING SYSTEM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, MA MAINLAND, 2001.
 - WETLAND RESOURCE AREAS WERE NOT ENCOUNTERED DURING THE FIELD SURVEY.
 - LOCUS IS ZONED R1
 - MINIMUM SETBACK REQUIREMENTS:
FRONT YARD 25'
SIDE YARD 15'
REAR YARD 50'
 - LOCUS IS SITUATED IN ZONE X AS SHOWN ON F.I.R.M. No 25023C0182K, EFFECTIVE JULY 6, 2021.
 - LOCUS IS NOT LOCATED IN A DEP ZONE 2 OR TOWN OF ROCKLAND AQUIFER PROTECTION DISTRICT.
 - UTILITY INFORMATION FROM ABOVE GROUND OBSERVED EVIDENCE IN CONJUNCTION WITH DIG SAFE MARKINGS AND RECORD PLANS. THE LAND SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE LAND SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. BEFORE CONSTRUCTION CALL DIG SAFE SYSTEMS, INC. AT 1-888-344-7233.
 - PLAN REFERENCES:

PB	PG
44	80
43	204
35	396
DB 3856	161
3975	171
35246	227
LCP 28492A	
 - BUFFER ZONE TO OFF-SITE WETLAND RESOURCE AREAS SHOWN ON PLAN IS BASED ON MASSGIS DATA AND APPROXIMATE ONLY.

- DRAINAGE NOTES:
- ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY EARTH MOVING ACTIVITIES.
 - THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES, ADDITIONAL SILTATION FENCING AND FILTER FABRIC FOR INSTALLATION AS DIRECTED BY THE TOWN TO MITIGATE ANY EMERGENCY CONDITIONS.
 - UPON COMPLETION OF ALL SITE WORK THE CONTRACTOR SHALL INSPECT ALL ON-SITE AND OFF-SITE CATCH BASINS (THAT RECEIVED CATCH BASIN PROTECTION) AND DRAINAGE MANHOLES AND REMOVE ALL SEDIMENT AND DEBRIS THAT HAS ACCUMULATED DURING THE COURSE OF CONSTRUCTION.
 - UNSUITABLE SOILS LOCATED WITHIN THE LIMITS OF THE SUBSURFACE INFILTRATION SYSTEMS SHALL BE REMOVED PRIOR TO INSTALLATION OF THE SYSTEM. THE BOTTOM OF EXCAVATION SHALL BE INSPECTED BY THE PROJECT ENGINEER PRIOR TO THE PLACEMENT OF THE SUBSURFACE CHAMBERS.
 - SUBSURFACE INFILTRATION SYSTEM SUBSOIL SHALL BE OVEREXCAVATED UNTIL THE NATIVE SAND MATERIALS ARE ENCOUNTERED (SUBSURFACE SYSTEM, C1 (SAND) LAYER AT APPROX. EL. 86.2). THE SUBSURFACE INFILTRATION SYSTEM SHALL BE PLACED OVER IMPORTED SAND CONFORMING WITH THE REQUIREMENTS OF THE MASSACHUSETTS SANITARY CODE (TITLE V) AS NEEDED.
 - INLET PROTECTION FOR RAIN GARDEN OVERFLOW PIPE SHALL INCLUDE PLACING FILTER FABRIC AND CRUSHED STONE OVER THE PIPE INLET.

- UTILITY NOTES:
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
 - THE CONTRACTOR SHALL COORDINATE ALL STREET WORK WITH THE ROCKLAND DPW.
 - THE CONTRACTOR SHALL EXCAVATE THE TEST PITS PRIOR TO INSTALLING THE DOMESTIC WATER SERVICE TO VERIFY THE ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER WITH THE RESULTS PRIOR TO COMMENCING ANY WORK.
 - THE WATER SERVICE SHALL BE INSTALLED WITH 5' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE.
 - ALL WATER SERVICE APPURTENANCES, MATERIALS, METHODS OF INSTALLATION SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
 - THE DOMESTIC WATER SERVICE SHALL BE ADEQUATELY PROTECTED AGAINST BACKFLOW (BACKFLOW PREVENTION) AT THE BUILDING.
 - AFTER PRESSURE TESTING AND CHLORINATION IS COMPLETED, SAMPLES SHALL BE TAKEN FROM THE DOMESTIC WATER SERVICE AND SHALL BE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS. THE CONTRACTOR IS REQUIRED TO NOTIFY THE ABINGTON ROCKLAND JOINT WATER WORKS AT LEAST 24 HOURS PRIOR TO THE TESTING.
 - THE DOMESTIC WATER SERVICE SHALL BE TESTED IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. A MINIMUM OF 2 SEPARATE WATER SAMPLES SHALL BE TESTED AT A STATE CERTIFIED LABORATORY.
 - A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER SERVICES AND WATER SERVICE. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER SERVICE THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER SERVICE. ALL OTHER UTILITIES REQUIRE MINIMUM 5' SEPARATION FROM OTHER UTILITIES.
 - ALL GRAVITY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR-35 UNLESS OTHERWISE NOTED.
 - WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
 - THE LOCATIONS OF PROPOSED ELECTRIC, TELEPHONE AND COMMUNICATION (E.T.C.) SERVICES ARE APPROXIMATE. THE PROJECT ELECTRICAL ENGINEER SHALL VERIFY THESE LOCATIONS PRIOR TO THE START OF CONSTRUCTION. COORDINATE ALL E.T.C. WORK WITH THE APPROPRIATE UTILITY COMPANIES.
 - THE PROPOSED GAS SERVICE LOCATION IS APPROXIMATE ONLY. THE CONTRACTOR SHALL COORDINATE THE GAS SERVICE INSTALLATION WITH THE MUNICIPAL GAS COMPANY.
 - ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ROCKLAND DEPARTMENT OF PUBLIC WORKS AND ABINGTON ROCKLAND JOINT WATER WORKS SPECIFICATIONS.
 - ALL EXISTING UTILITIES WITHIN THE SITE ARE TO BE REMOVED UNLESS OTHERWISE STATED TO REMAIN.
 - THE PROPOSED ON-SITE SEWER MAIN SHALL INCLUDE CLAY CHECK DAMS INSTALLED IN THE SEWER TRENCH EVERY 50 FT. FROM THE SEWER CLEANOUT (SCO-1) TO THE DOGHOUSE MANHOLE (SMH-2).



LOCUS MAP
Not to Scale

REV	DATE	DESCRIPTION	BY	APP
1	11/30/21	DRAINAGE & UTILITIES	ESS	BCM
2	1/3/22	PEER REVIEW LETTER	ESS	BCM

MCKENZIE
ENGINEERING GROUP
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SITE DEVELOPMENT PLANS
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS

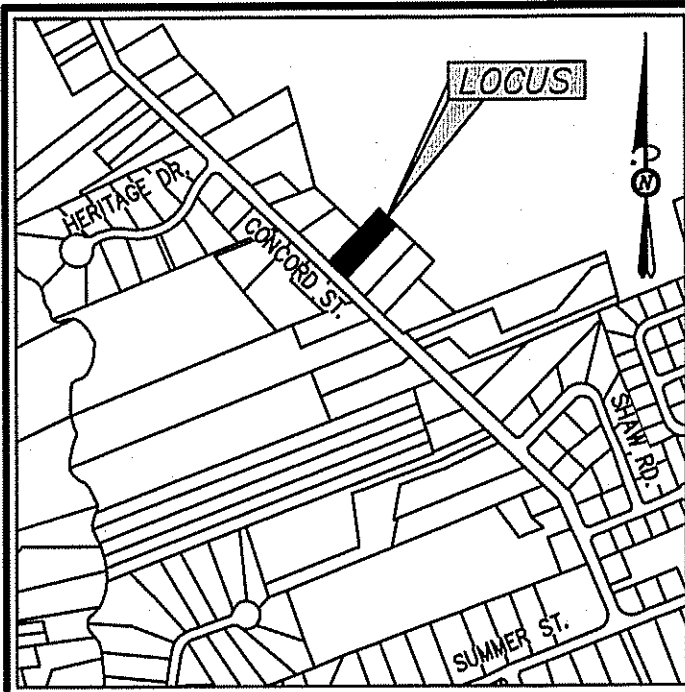
PROFESSIONAL ENGINEER:

OWNERS/APPLICANT:
WALL STREET DEVELOPMENT CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

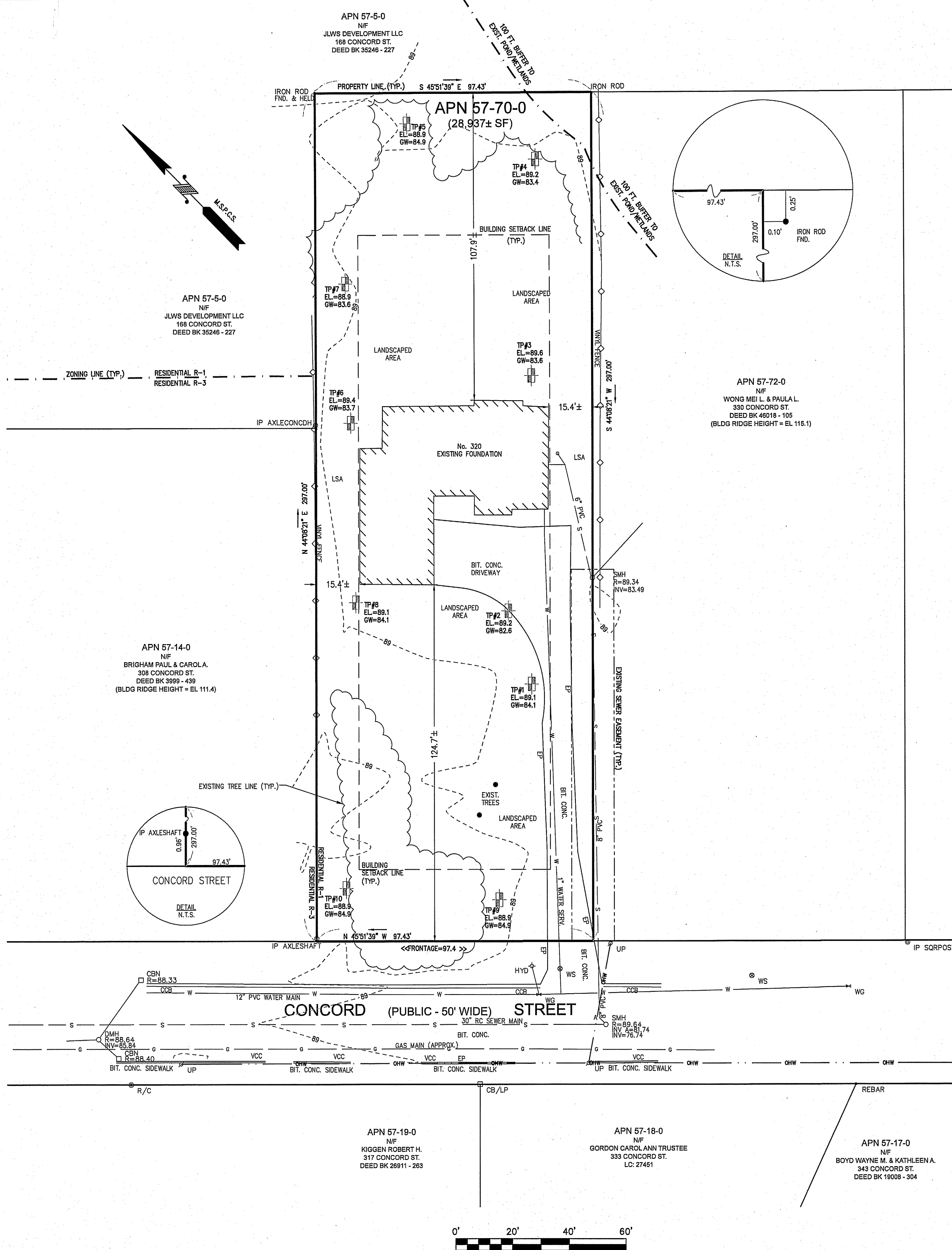
PERMIT PLAN SET

DRAWN BY: ESS
DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: OCTOBER 7, 2021
SCALE:
PROJECT NO.: 221-187
DWG. TITLE:
**LEGEND,
ABBREVIATIONS
& GENERAL
NOTES**

DWG. NO.: **L-1**



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ABBREVIATIONS	
FFE	FIRST FLOOR ELEVATION
BIT CONC.	BITUMINOUS CONCRETE PAVEMENT
CCB	CAPE COD BERM
EP	EDGE OF PAVEMENT
BC	BITUMINOUS CONCRETE CURB
(AM)	AS MEASURED
RET WALL	RETAINING WALL
CNC	CONCRETE
RCP	REINFORCED CONCRETE PIPE
VCC	VERTICAL GRANITE CURB
ETW	EDGE OF TRAVEL WAY
MTL	METAL BERM
VCC	VERTICAL CONCRETE CURB
CNP	CORRUGATED METAL PIPE
LSA	LANDSCAPED AREA

LEGEND

SURVEY SYMBOLS

- REBAR
- ANGLE IRON
- CONCRETE BOUND WITH DRILL HOLE
- CB/DH
- STONE BOUND
- SB/DH
- STONE BOUND

UTILITY SYMBOLS

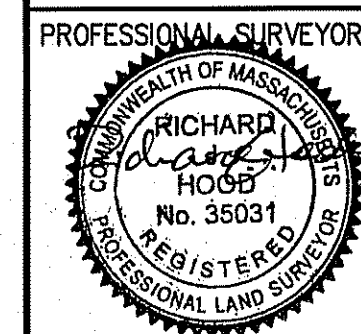
- CHIMNEY
- ELECTRIC HAND HOLE
- GUY POLE
- GUY WIRE
- HVAC UNIT
- BUILDING LIGHT W/MAST
- BUILDING LIGHT
- TRANSFORMER
- WATER GATE
- EXHAUST VENT
- AIR VENT
- DRAINAGE SUMP
- EMH
- ELECTRIC MANHOLE
- SMH
- SEWER MANHOLE
- DMH
- DRAIN MANHOLE
- TMH
- TELEPHONE MANHOLE
- CBN
- DRAINAGE CATCH BASIN
- DOOR WAY THRESHOLD
- HYDRANT
- POST INDICATOR VALVE
- UTILITY POLE
- YARD LIGHT

- RIP RAP
- BOLLARD
- SIGN
- FIRE ALARM
- DECIDUOUS TREE
- CONIFEROUS TREE

LINE DESIGNATORS

- WATER MAIN
- HANDRAIL
- JERSEY BARRIER
- GUARD RAIL
- OVERHEAD WIRES
- GAS LINE
- WATER SERVICE
- UNDERGROUND ELECTRIC
- STORM DRAIN LINE
- SANITARY SEWER LINE
- DRAINAGE SWALE
- CHAIN LINK FENCE

EXISTING CONDITIONS PLAN
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS



OWNERS/APPLICANT:
WALL STREET DEVELOPMENT CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

DRAWN BY: ESS
DESIGNED BY: ESS
CHECKED BY: RLS
APPROVED BY: R.H.
DATE: OCTOBER 7, 2021
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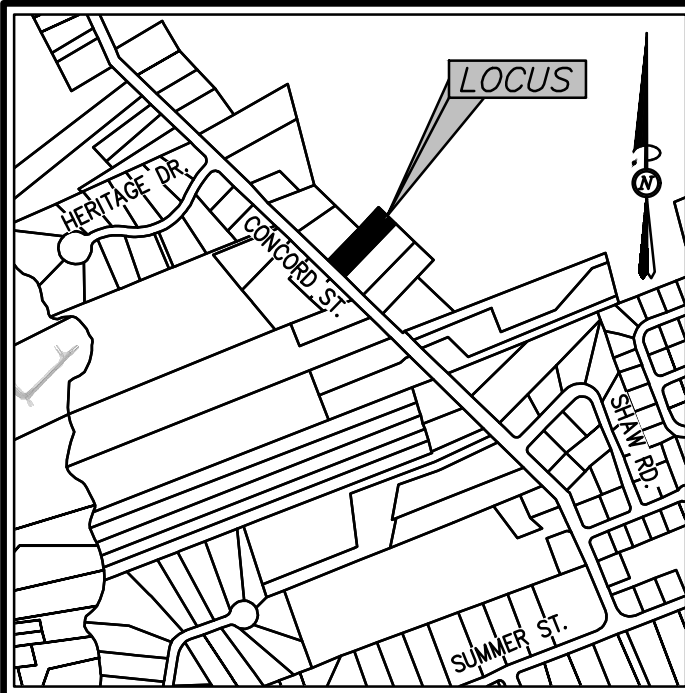
EXISTING CONDITIONS PLAN

DWG. NO:

EX-1

I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ON-THE-GROUND INSTRUMENT SURVEY BY MCKENZIE ENGINEERING GROUP, INC., IN SEPTEMBER & NOVEMBER, 2021.
Richard J. McKenzie 13 DEC 21
RICHARD J. MCKENZIE, PLS DATE

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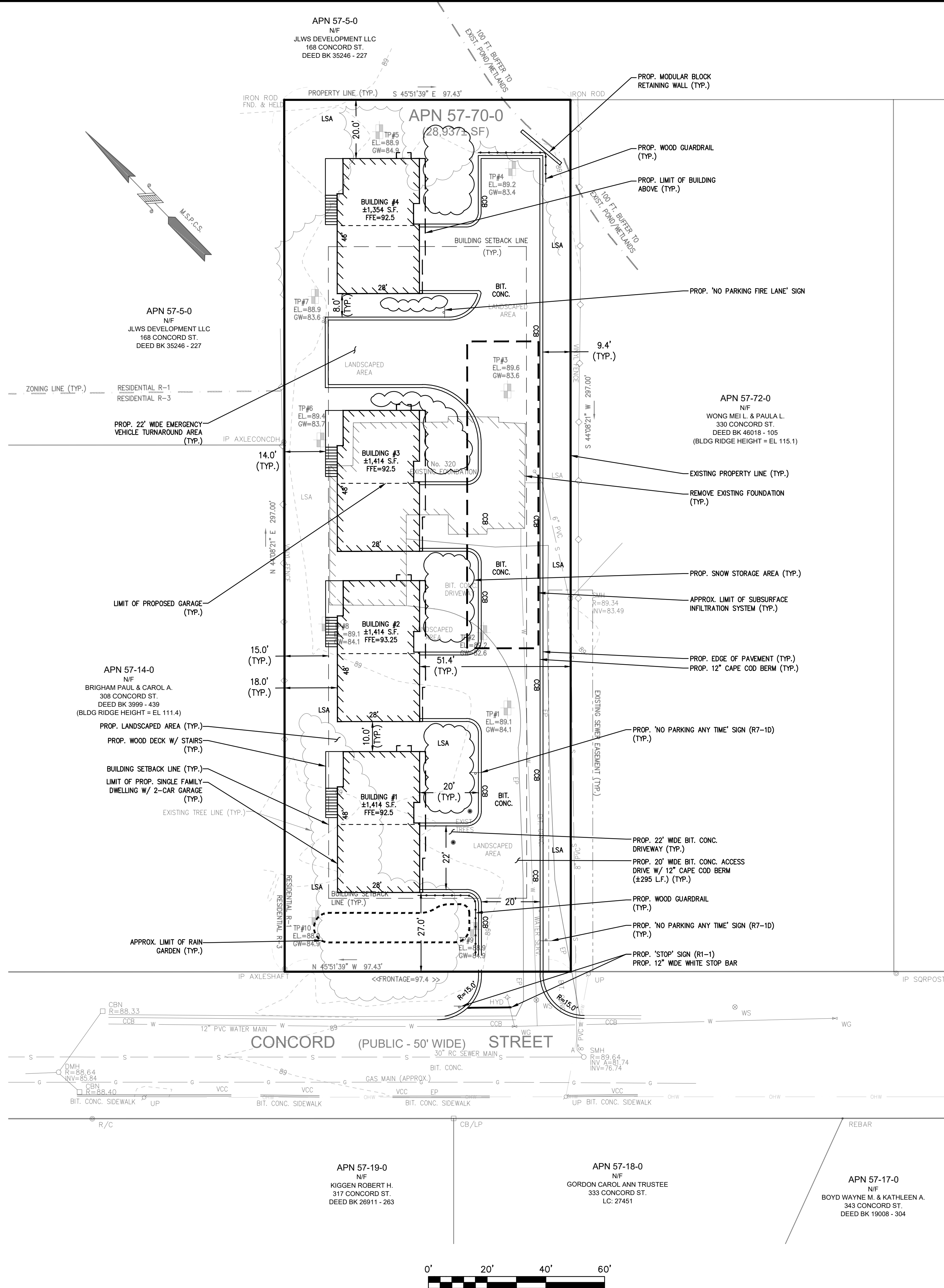
LOCUS MAP
Not to Scale

LAND USAGE TABLES

ARTICLE V – BUILDING, LOT AND GENERAL DISTRICT REGULATIONS

RESIDENTIAL (R-1) ZONING DISTRICT			
CRITERIA	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	32,670 S.F.	28,937 S.F.	28,937 S.F.
MIN. FRONTAGE AND LOT WIDTH	110 FT.	97.4 FT.	97.4 FT.
MAX. HEIGHT	2.5 STORIES/30 FT.*	1 STORY	<2.5 STORIES
MAX. BUILDING COVERAGE	25%	10.2%	18.4%
MAX. DWELLING UNITS PER 32,670 S.F.	1	1	4.5
MIN. FRONT YARD	25 FT.	124.7 FT.	27.0 FT.
MIN. SIDE YARD	15 FT.	15.4 FT.	14.0 FT.
MIN. REAR YARD	50 FT.	107.9 FT.	20.0 FT.
TOTAL IMPERVIOUS AREA	–	5,639 S.F.	14,990 S.F.

* THE MAXIMUM HEIGHT (STORIES/FEET) MAY BE INCREASED TO 3.0/36 ON LOTS WITH AN AREA OF 32,670 S.F. OR GREATER AND THAT THE STRUCTURE MEETS ALL THE CURRENT SETBACKS.



ABBREVIATIONS	
FFE	FIRST FLOOR ELEVATION
BIT CONC.	BITUMINOUS CONCRETE PAVEMENT
CCB	CAPE COD BERM
EP	EDGE OF PAVEMENT
BC	BITUMINOUS CONCRETE CURB
(AM)	AS MEASURED
RET WALL	RETAINING WALL
CONC.	CONCRETE
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CMP	CORRUGATED METAL PIPE
LSA	LANDSCAPED AREA

LEGEND	
SURVEY SYMBOLS	
•	REBAR
∨	ANGLE IRON
CB/DH	CONCRETE BOUND WITH DRILL HOLE
SB	STONE BOUND
SB/DH	STONE BOUND
UTILITY SYMBOLS	
CHIMNEY	CHIMNEY
ELECTRIC HAND HOLE	ELECTRIC HAND HOLE
GUY POLE	GUY POLE
HVAC UNIT	HVAC UNIT
BUILDING LIGHT W/MAST	BUILDING LIGHT W/MAST
TRANSFORMER	TRANSFORMER
WATER GATE	WATER GATE
EXHAUST VENT	EXHAUST VENT
AIR VENT	AIR VENT
DRAINAGE SUMP	DRAINAGE SUMP
EMH	ELECTRIC MANHOLE
SMH	SEWER MANHOLE
DMH	DRAIN MANHOLE
TMH	TELEPHONE MANHOLE
CBN	DRAINAGE CATCH BASIN
DOOR WAY THRESHOLD	DOOR WAY THRESHOLD
HYDRANT	HYDRANT
POST INDICATOR VALVE	POST INDICATOR VALVE
UTILITY POLE	UTILITY POLE
YARD LIGHT	YARD LIGHT
RIP RAP	RIP RAP
BOLLARD	BOLLARD
SIGN	SIGN
FIRE ALARM	FIRE ALARM
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE
LINE DESIGNATORS	
W	WATER MAIN
HANDRAIL	HANDRAIL
JERSEY BARRIER	JERSEY BARRIER
GUARD RAIL	GUARD RAIL
OVERHEAD WIRES	OVERHEAD WIRES
G	GAS LINE
WS	WATER SERVICE
UNDERGROUND ELECTRIC	UNDERGROUND ELECTRIC
STORM DRAIN LINE	STORM DRAIN LINE
S	SANITARY SEWER LINE
DRAINAGE SWALE	DRAINAGE SWALE
CHAIN LINK FENCE	CHAIN LINK FENCE

BY	APP	DESCRIPTION	DATE	REV
ESS	BCM	DRAINAGE & UTILITIES	11/30/21	1
ESS	BCM	PEER REVIEW LETTER	1/3/22	2

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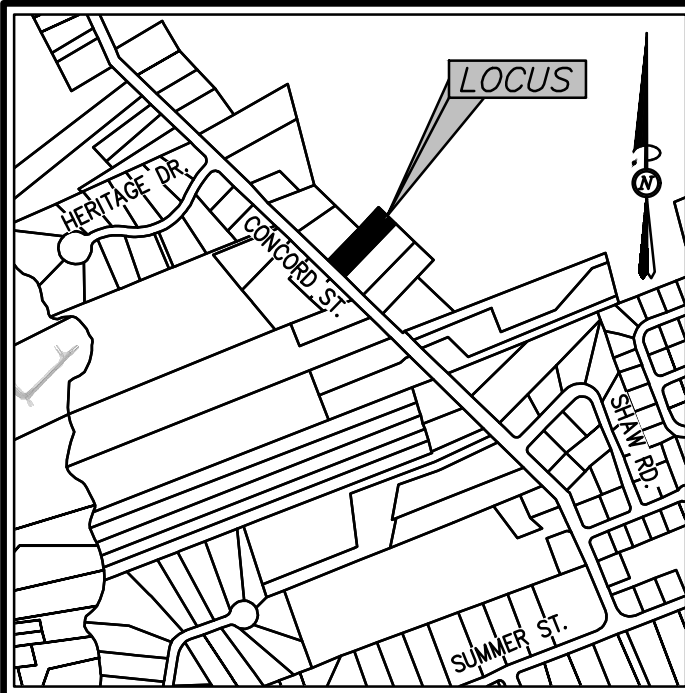
SITE DEVELOPMENT PLANS (ASSESSOR'S MAP 57, PARCEL 70) 320 CONCORD STREET ROCKLAND, MASSACHUSETTS

PROFESSIONAL ENGINEER:

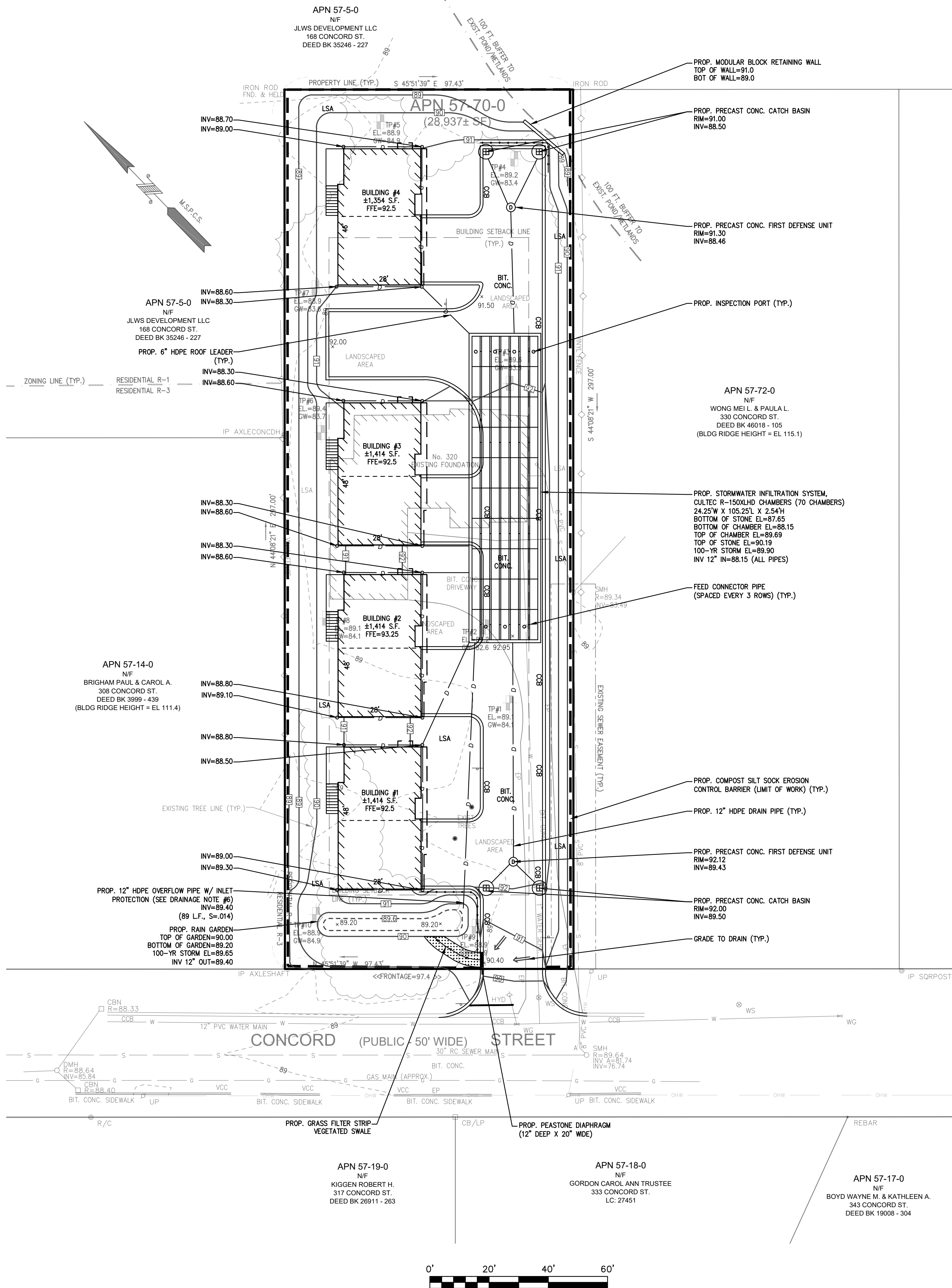
OWNERS/APPLICANT:
WALL STREET DEVELOPMENT CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	OCTOBER 7, 2021
SCALE:	1"=20'
PROJECT NO.:	221-187
DWG. TITLE:	SITE LAYOUT PLANS

DWG. NO.: **C-1**



LOCUS MAP
Not to Scale



- DRAINAGE NOTES:**
1. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY EARTH MOVING ACTIVITIES.
 2. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES, ADDITIONAL SILTATION FENCING AND FILTER FABRIC FOR INSTALLATION AS DIRECTED BY THE TOWN TO MITIGATE ANY EMERGENCY CONDITIONS.
 3. UPON COMPLETION OF ALL SITE WORK THE CONTRACTOR SHALL INSPECT ALL ON-SITE AND OFF-SITE CATCH BASINS (THAT RECEIVED CATCH BASIN PROTECTION) AND DRAINAGE MANHOLES AND REMOVE ALL SEDIMENT AND DEBRIS THAT HAS ACCUMULATED DURING THE COURSE OF CONSTRUCTION.
 4. UNSUITABLE SOILS LOCATED WITHIN THE LIMITS OF EXCAVATION SYSTEMS SHALL BE REMOVED PRIOR TO INSTALLATION OF THE SYSTEM. THE BOTTOM OF EXCAVATION SHALL BE INSPECTED BY THE PROJECT ENGINEER PRIOR TO THE PLACEMENT OF THE SUBSURFACE CHAMBERS.
 5. SUBSURFACE INFILTRATION SYSTEM SUBSOIL SHALL BE OVEREXCAVATED UNTIL THE NATIVE SAND MATERIALS ARE ENCOUNTERED (SUBSURFACE SYSTEM, C1 (SAND) LAYER AT APPROX. EL 86.2). THE SUBSURFACE INFILTRATION SYSTEM SHALL BE PLACED OVER IMPORTED SAND CONFORMING WITH THE REQUIREMENTS OF THE MASSACHUSETTS SANITARY CODE (TITLE V) AS NEEDED.
 6. INLET PROTECTION FOR RAIN GARDEN OVERFLOW PIPE SHALL INCLUDE PLACING FILTER FABRIC AND CRUSHED STONE OVER THE PIPE INLET.

ABBREVIATIONS	
FTE	FIRST FLOOR ELEVATION
BIT CONC.	BITUMINOUS CONCRETE PAVEMENT
CCB	CAPE COD BERM
EP	EDGE OF PAVEMENT
BC	BITUMINOUS CONCRETE CURB
(AM)	AS MEASURED
RET WALL	RETAINING WALL
CONC.	CONCRETE
RCP	REINFORCED CONCRETE PIPE
VCC	VERTICAL GRANITE CURB
ETW	EDGE OF TRAVEL WAY
MTL	METAL BERM
VCC	VERTICAL CONCRETE CURB
CMP	CORRUGATED METAL PIPE
LSA	LANDSCAPED AREA

LEGEND

SURVEY SYMBOLS

- REBAR
- ✓ ANGLE IRON
- CB/DH □ CONCRETE BOUND WITH DRILL HOLE
- SB □ STONE BOUND
- SB/DH □ STONE BOUND

UTILITY SYMBOLS

- CHIMNEY
- ELECTRIC HAND HOLE
- GUY POLE
- GW GUY WIRE
- HVAC UNIT
- BUILDING LIGHT W/MAST
- BUILDING LIGHT TRANSFORMER
- WATER GATE
- EXHAUST VENT
- AIR VENT
- DRAINAGE SUMP
- EMH ELECTRIC MANHOLE
- SMH SEWER MANHOLE
- DMH DRAIN MANHOLE
- TMH TELEPHONE MANHOLE
- CSN DRAINAGE CATCH BASIN
- DOOR WAY THRESHOLD
- HYDRANT
- POST INDICATOR VALVE
- UTILITY POLE
- YARD LIGHT

- RIP RAP
- BOLLARD
- SIGN
- FIRE ALARM
- DECIDUOUS TREE
- CONIFEROUS TREE

LINE DESIGNATORS

- W WATER MAIN
- HANDRAIL
- JERSEY BARRIER
- GUARD RAIL
- OVERHEAD WIRES
- GAS LINE
- WS WATER SERVICE
- UNDERGROUND ELECTRIC
- STORM DRAIN LINE
- SANITARY SEWER LINE
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- CHAIN LINK FENCE

REV	DATE	DESCRIPTION	BY	APP
1	11/30/21	DRAINAGE & UTILITIES	ESS	BCM
2	1/3/22	PEER REVIEW LETTER	ESS	BCM



SITE DEVELOPMENT PLANS (ASSESSOR'S MAP 57, PARCEL 70) 320 CONCORD STREET ROCKLAND, MASSACHUSETTS

PROFESSIONAL ENGINEER:



OWNERS/APPLICANT:
WALL STREET DEVELOPMENT
CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

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PROJECT NO.:	221-187
DWG. TITLE:	

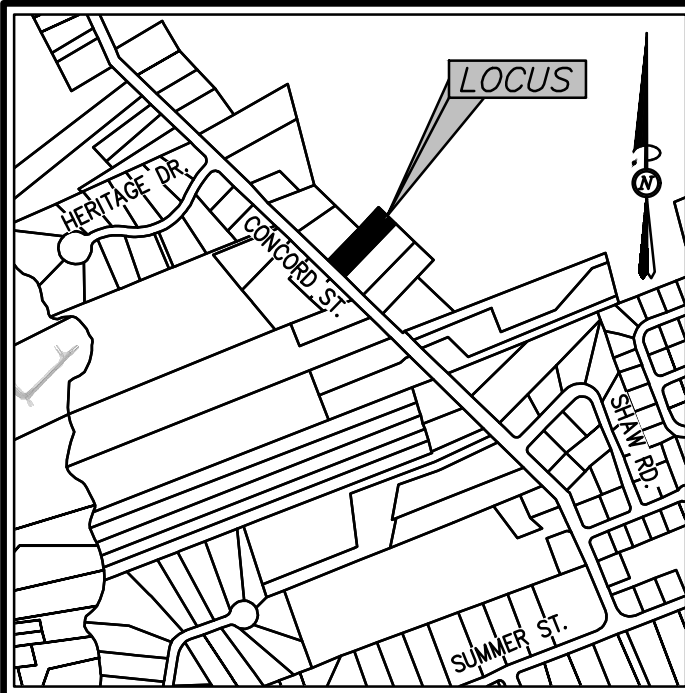
GRADING & DRAINAGE PLAN

DWG. NO:

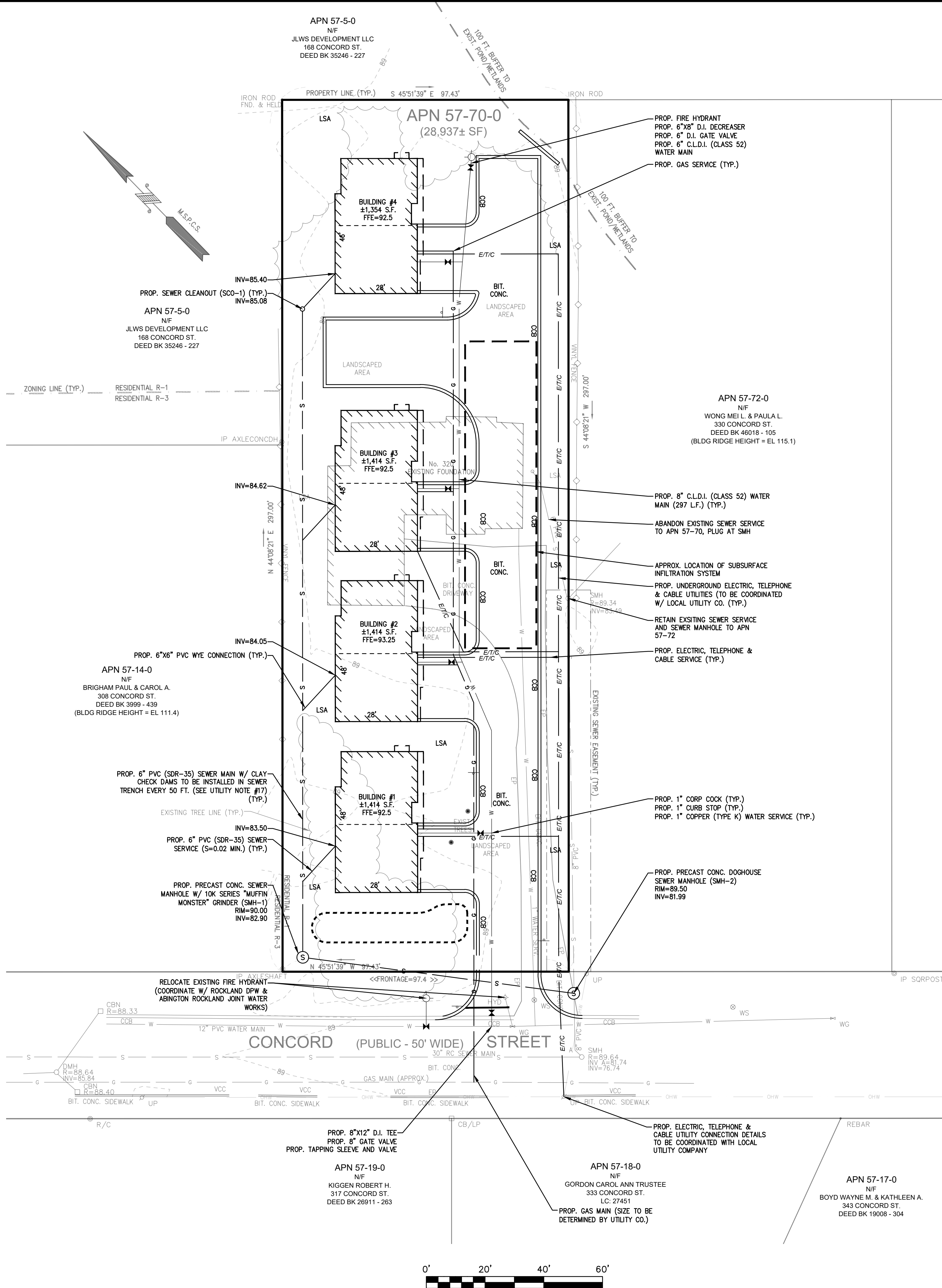
C-2

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M:\MEG\2021 PROJECTS\221-187 WALL ST. DEV. CORP. - 320 CONCORD ST., ROCKLAND\DWGS\221-187 MAINS_FIRE-REV.DWG



LOCUS MAP
Not to Scale



ABBREVIATIONS

FTE	FIRST FLOOR ELEVATION
BIT CONC.	BITUMINOUS CONCRETE PAVEMENT
CCB	CAPE COD BERM
EP	EDGE OF PAVEMENT
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LSA	LANDSCAPED AREA

LEGEND

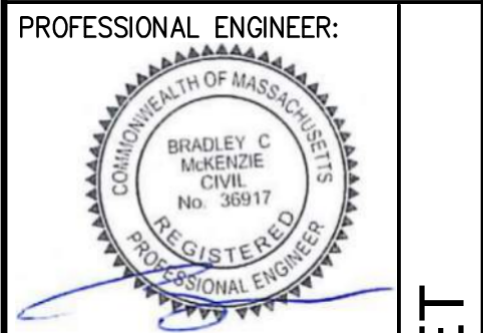
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GUY WIRE	GUY WIRE
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BUILDING LIGHT W/MAST	BUILDING LIGHT W/MAST
TRANSFORMER	TRANSFORMER
WATER GATE	WATER GATE
EXHAUST VENT	EXHAUST VENT
AIR VENT	AIR VENT
DRAINAGE SUMP	DRAINAGE SUMP
EMH	ELECTRIC MANHOLE
SMH	SEWER MANHOLE
DMH	DRAIN MANHOLE
TMH	TELEPHONE MANHOLE
CBN	DRAINAGE CATCH BASIN
DOOR WAY THRESHOLD	DOOR WAY THRESHOLD
HYDRANT	HYDRANT
POST INDICATOR VALVE	POST INDICATOR VALVE
UTILITY POLE	UTILITY POLE
YARD LIGHT	YARD LIGHT
RIP RAP	RIP RAP
BOLLARD	BOLLARD
SIGN	SIGN
FIRE ALARM	FIRE ALARM
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE
LINE DESIGNATORS	
W	WATER MAIN
HANDRAIL	HANDRAIL
JERSEY BARRIER	JERSEY BARRIER
GUARD RAIL	GUARD RAIL
OVERHEAD WIRES	OVERHEAD WIRES
GAS LINE	GAS LINE
WATER SERVICE	WATER SERVICE
UNDERGROUND ELECTRIC	UNDERGROUND ELECTRIC
STORM DRAIN LINE	STORM DRAIN LINE
SANITARY SEWER LINE	SANITARY SEWER LINE
DRAINAGE SWALE	DRAINAGE SWALE
CHAIN LINK FENCE	CHAIN LINK FENCE

- UTILITY NOTES:
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
 - THE CONTRACTOR SHALL COORDINATE ALL STREET WORK WITH THE ROCKLAND DPW.
 - THE CONTRACTOR SHALL EXCAVATE THE TEST PITS PRIOR TO INSTALLING THE DOMESTIC WATER SERVICE TO VERIFY THE ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER WITH THE RESULTS PRIOR TO COMMENCING ANY WORK.
 - THE WATER SERVICE SHALL BE INSTALLED WITH 5' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE.
 - ALL WATER SERVICE APPURTENANCES, MATERIALS, METHODS OF INSTALLATION SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
 - THE DOMESTIC WATER SERVICE SHALL BE ADEQUATELY PROTECTED AGAINST BACKFLOW (BACKFLOW PREVENTION) AT THE BUILDING.
 - AFTER PRESSURE TESTING AND CHLORINATION IS COMPLETED, SAMPLES SHALL BE TAKEN FROM THE DOMESTIC WATER SERVICE AND SHALL BE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS. THE CONTRACTOR IS REQUIRED TO NOTIFY THE ABINGTON ROCKLAND JOINT WATER WORKS AT LEAST 24 HOURS PRIOR TO THE TESTING.
 - THE DOMESTIC WATER SERVICE SHALL BE TESTED IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. A MINIMUM OF 2 SEPARATE WATER SAMPLES SHALL BE TESTED AT A STATE CERTIFIED LABORATORY. A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER SERVICES AND WATER SERVICE. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER SERVICE THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER SERVICE. ALL OTHER UTILITIES REQUIRE MINIMUM 5' SEPARATION FROM OTHER UTILITIES.
 - ALL GRAVITY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR-35 UNLESS OTHERWISE NOTED.
 - WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
 - THE LOCATIONS OF PROPOSED ELECTRIC, TELEPHONE AND COMMUNICATION (E.T.C.) SERVICES ARE APPROXIMATE. THE PROJECT ELECTRICAL ENGINEER SHALL VERIFY THESE LOCATIONS PRIOR TO THE START OF CONSTRUCTION. COORDINATE ALL E.T.C. WORK WITH THE APPROPRIATE UTILITY COMPANIES.
 - THE PROPOSED GAS SERVICE LOCATION IS APPROXIMATE ONLY. THE CONTRACTOR SHALL COORDINATE THE GAS SERVICE INSTALLATION WITH THE MUNICIPAL GAS COMPANY.
 - ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ROCKLAND DEPARTMENT OF PUBLIC WORKS AND ABINGTON ROCKLAND JOINT WATER WORKS SPECIFICATIONS.
 - ALL EXISTING UTILITIES WITHIN THE SITE ARE TO BE REMOVED UNLESS OTHERWISE STATED TO REMAIN.
 - THE PROPOSED ON-SITE SEWER MAIN SHALL INCLUDE CLAY CHECK DAMS INSTALLED IN THE SEWER TRENCH EVERY 50 FT. FROM THE SEWER CLEANOUT (SCO-1) TO THE DOGHOUSE MANHOLE (SMH-2).

REV	DATE	DESCRIPTION	BY	APP
1	11/30/21	DRAINAGE & UTILITIES	ESS	BCM
2	1/3/22	PEER REVIEW LETTER	ESS	BCM



SITE DEVELOPMENT PLANS
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS

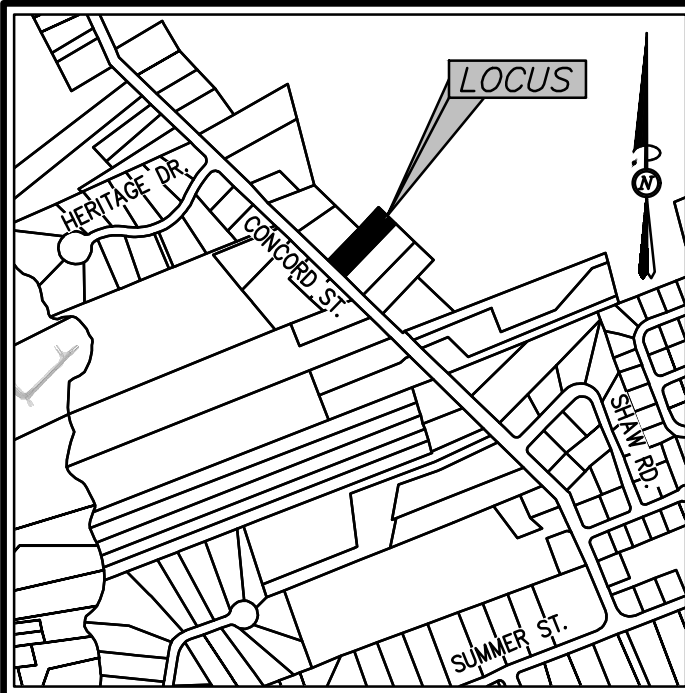


OWNERS/APPLICANT:
WALL STREET DEVELOPMENT CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

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DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: OCTOBER 7, 2021
SCALE: 1"=20'
PROJECT NO.: 221-187
DWG. TITLE:

UTILITY PLAN

DWG. NO.: **C-3**



LOCUS MAP
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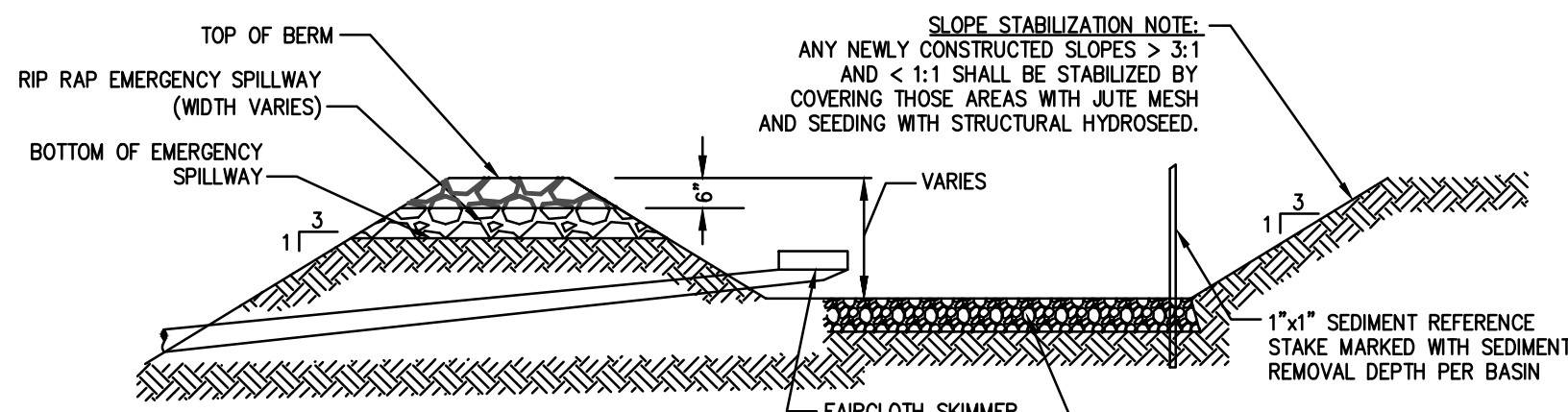
CONSTRUCTION PHASE BMP OPERATION AND MAINTENANCE NOTES:

- STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK EROSION CONTROL BARRIERS, STABILIZED CONSTRUCTION ENTRANCES, CONCRETE WASH STATIONS, STOCKPILE AREAS, AND INLET PROTECTION.
- STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
- OPERATOR PERSONNEL AND/OR ITS CONSULTANTS MUST INSPECT THE CONSTRUCTION SITE AT LEAST ONCE EVERY 7 CALENDAR DAYS OR EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT $\frac{1}{2}$ INCH OR GREATER. THE INSPECTOR SHOULD REVIEW THE EROSION AND SEDIMENT CONTROLS WITH RESPECT TO THE FOLLOWING:
 - WHETHER OR NOT THE BMP WAS INSTALLED/PERFORMED CORRECTLY.
 - WHETHER OR NOT THERE HAS BEEN DAMAGE TO THE BMP SINCE IT WAS INSTALLED OR PERFORMED.
 - WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE BMP.
- THE INSPECTOR SHALL COMPLETE THE INSPECTION SCHEDULE AND EVALUATION CHECKLIST FOR FINDINGS AND SHOULD REQUEST THE REQUIRED MAINTENANCE OR REPAIR.
- ALL SLOPES EXCEEDING 15% RESULTING FROM SITE GRADING SHALL BE BOTH COVERED WITH FOUR INCHES OF TOPSOIL AND PLANTED WITH A VEGETATED COVER SUFFICIENT TO PREVENT EROSION.

CONSTRUCTION SEQUENCE

TO PREVENT EXCESSIVE EROSION AND SILTING, THE FOLLOWING CONSTRUCTION SEQUENCE COUPLED WITH OTHER WIDELY ACCEPTED PRINCIPALS FOR REDUCING EROSION AND SEDIMENTATION SHALL BE IMPLEMENTED IN THE DEVELOPMENT OF THE SITE.

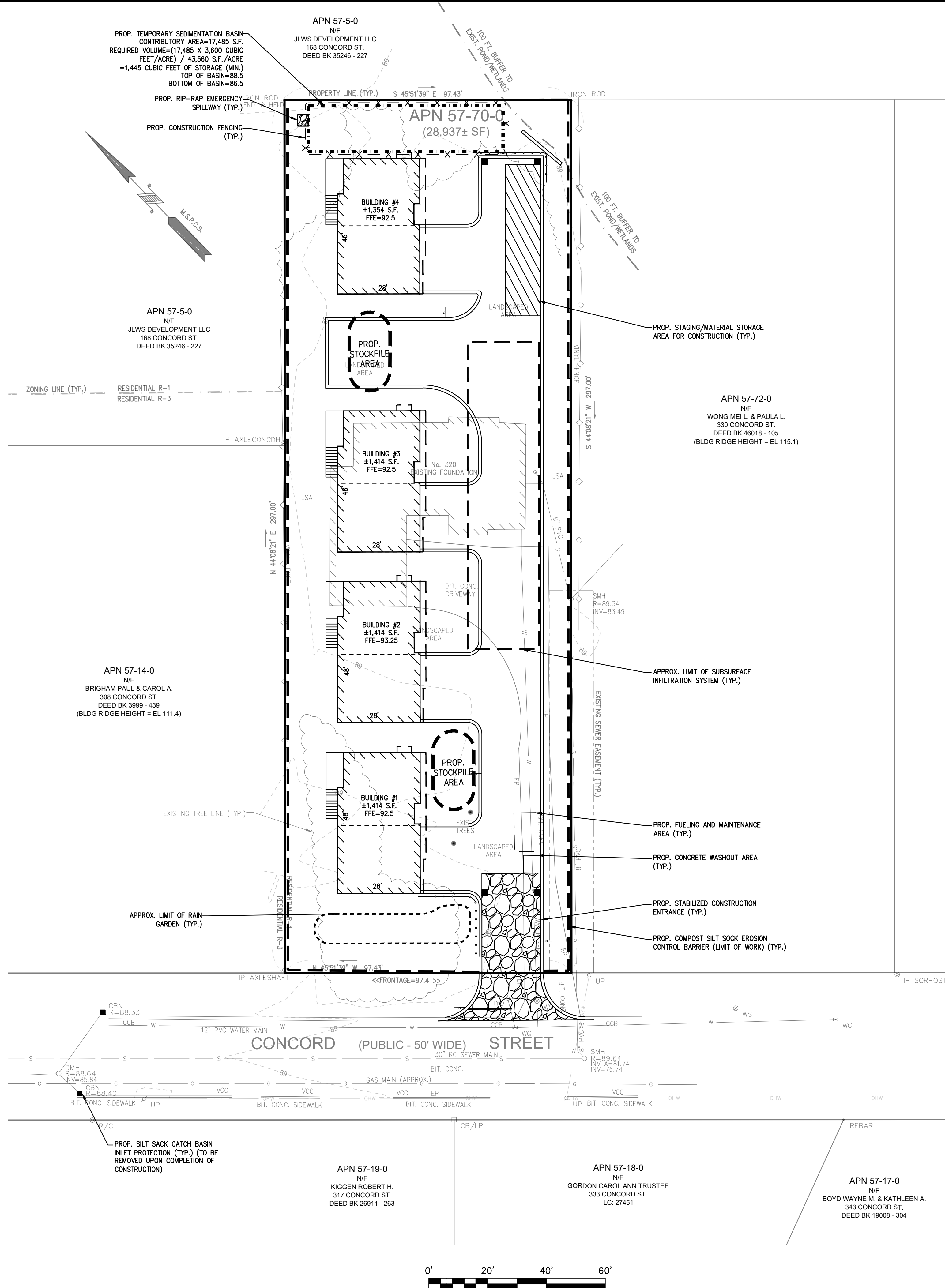
- THE CONTRACTOR SHALL COORDINATE A PRE-CONSTRUCTION MEETING PRIOR TO ANY CONSTRUCTION ACTIVITY.
- STABILIZATION PRACTICES FOR EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. REFER TO "EROSION AND SEDIMENTATION CONTROL" SECTION OF THIS PLAN & PLACE SILTATION FENCE ON THE SITE PLANS.
- CLEAR AND GRUB UP AS REQUIRED FOR THE CONSTRUCTION OF THE ROADWAY, PARKING AREAS AND RELATED INFRASTRUCTURE.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
- EXCAVATE TOPSOIL AND SUBSOIL FROM CUT AND FILL AREAS AND STOCKPILE ON SITE IN LOCATIONS SHOWN ON THE PLAN. CONSIDERATION SHOULD BE GIVEN TO LOCATING STOCKPILES ON THE UPHILL SIDE OF DISTURBED AREAS, WHERE POSSIBLE, TO ACT AS TEMPORARY DIVERSIONS.
- CONSTRUCT CUT AND FILL AREAS, INSTALLING HAYBALE CHECK DAMS AT TOES OF ALL 3:1 OR GREATER SLOPES, AND AT ENDS OF ALL CUT AREAS. ALL FILL WILL BE INSTALLED USING 12" MAXIMUM COMPACTION LIFTS. PLACE ALL SLOPE PROTECTION WHERE INDICATED ON THE PLAN. THE SUBSURFACE INFILTRATION SYSTEM SHALL BE CONSTRUCTED IMMEDIATELY AFTER THE ROADWAY ROUGH GRADING IS COMPLETED AND THE AREA HAS BEEN CLEARED OF VEGETATION.
- INSTALL CLOSED DRAINAGE SYSTEM AND OTHER UTILITIES. ALL CATCH BASINS SHALL BE COVERED WITH SILTSACK OR EQUIVALENT INLET PROTECTION.
- GRADE ROADWAY TO SUBGRADE ELEVATION AND CONSTRUCT SIDE SLOPES. APPLY TEMPORARY STABILIZATION MEASURES WHERE WARRANTED. REFER TO "EROSION AND SEDIMENTATION CONTROL" SECTION OF THIS PLAN.
- EXCAVATE AND CONSTRUCT BUILDING FOUNDATIONS.
- PLACE GRAVEL SUBBASE.
- PLACE THE BITUMINOUS CONCRETE BINDER COURSE ON ROADWAY AND PARKING AREAS.
- CONSTRUCT BUILDING STRUCTURES AND ASSOCIATED UTILITY CONNECTIONS.
- GRADE SLOPES AND STABILIZE CUT AREAS AT TOE OF SLOPES. BLEND ALL SLOPES INTO EXISTING TOPOGRAPHY AND LOAM AND SEED ALL DISTURBED AREAS. SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH JUTE MESH.
- PLACE THE FINAL WEARING COURSE OF PAVEMENT.
- COMPLETE FINE GRADING OF SHOULDERS AND PLACE PAVEMENT IN MISCELLANEOUS AREAS.
- REMOVE TEMPORARY EROSION CONTROL DEVICES ONCE ADEQUATE GROWTH IS ESTABLISHED. ADEQUATE GROWTH IS DEFINED AS VEGETATION COVERING 75% OR MORE OF THE GROUND SURFACE.



VOLUME REQUIREMENTS FOR TEMPORARY SEDIMENTATION BASINS
TEMPORARY SEDIMENTATION BASINS SHALL HAVE A MINIMUM VOLUME BASED ON 3,600 Cu. Ft. OF STORAGE FOR EACH ACRE DRAINED TO BASIN.

CONSTRUCTION NOTE:
TEMPORARY SEDIMENTATION BASINS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO LOCATIONS SHOWN ON THE PLAN, BUT SITE CONDITION SUCH AS SOILS, POOL AREA, AND SPILLWAY CONDITIONS SHALL BE CONSIDERED. CONTRACTOR SHALL HAVE THE FLEXIBILITY TO ADJUST LOCATIONS AS LONG AS REQUIRED VOLUME IS PROVIDED.

TEMPORARY SEDIMENTATION BASIN
NOT TO SCALE



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CCB	CAPE COD BERM
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LSA	LANDSCAPED AREA

LEGEND

SURVEY SYMBOLS

- REBAR
- ANGLE IRON
- CONCRETE BOUND WITH DRILL HOLE
- STONE BOUND
- STONE BOUND

UTILITY SYMBOLS

- CHIMNEY
- ELECTRIC HAND HOLE
- GUY POLE
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SITE DEVELOPMENT PLANS (ASSESSOR'S MAP 57, PARCEL 70) 320 CONCORD STREET ROCKLAND, MASSACHUSETTS

PROFESSIONAL ENGINEER:



OWNERS/APPLICANT:
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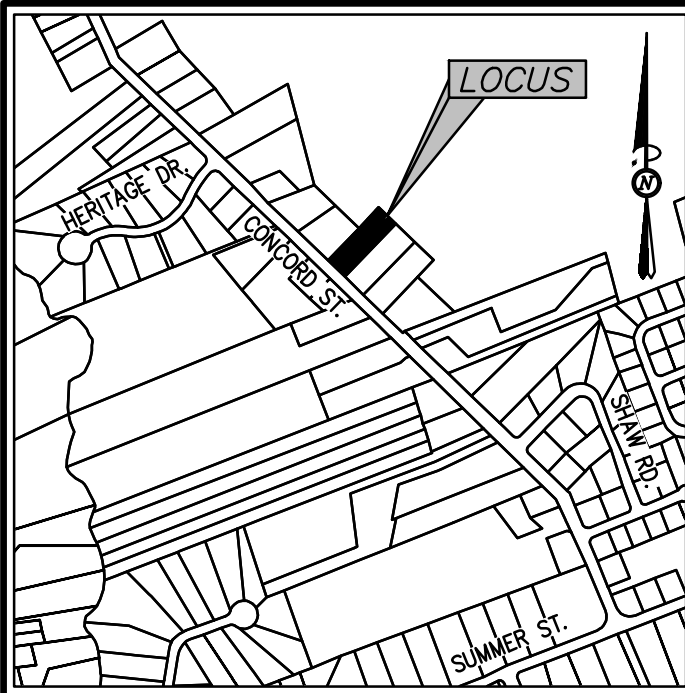
EROSION & SEDIMENT CONTROL PLAN

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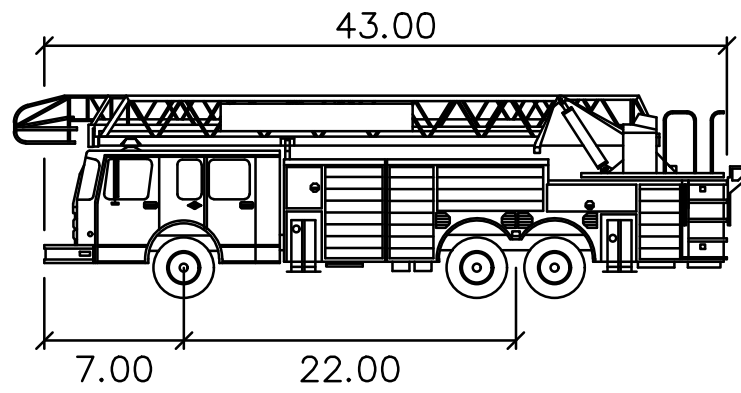
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M:\MEG\2021 PROJECTS\221-187 WALL ST. DEV. CORP. - 320 CONCORD ST., ROCKLAND\DWGS\221-187 MAINS_FIRE-REV.DWG



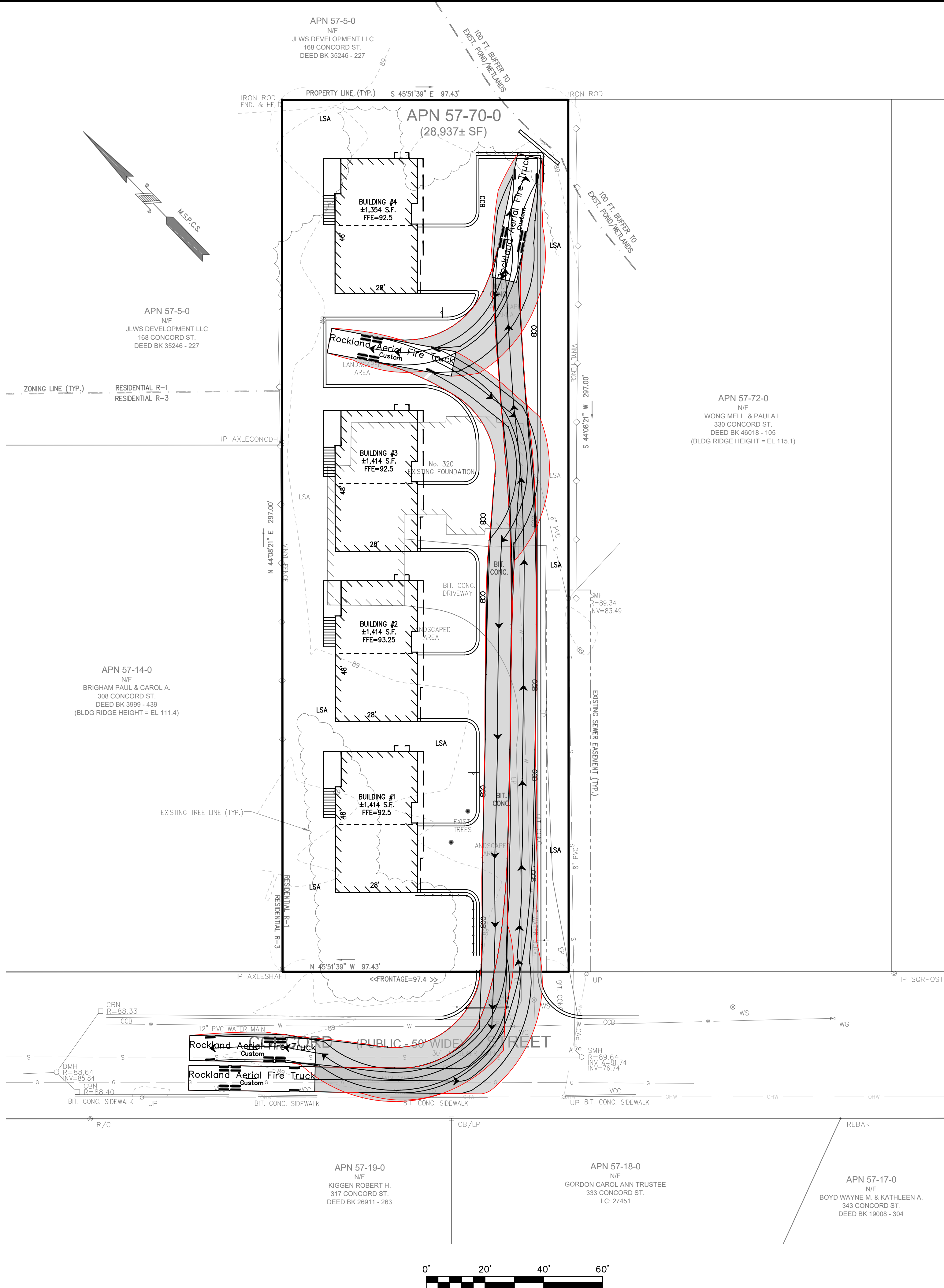
LOCUS MAP
Not to Scale



Aerial Fire Truck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 33.3

NOTE: LIMIT OF BUMPER OVERHANG IS SHOWN IN RED. VEHICLE WHEEL PATH IS SHOWN AS BLACK LINES.



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AIR VENT	AIR VENT
DRAINAGE SUMP	DRAINAGE SUMP
EMH	ELECTRIC MANHOLE
SMH	SEWER MANHOLE
DMH	DRAIN MANHOLE
TMH	TELEPHONE MANHOLE
CBN	DRAINAGE CATCH BASIN
DOOR WAY THRESHOLD	DOOR WAY THRESHOLD
HYDRANT	HYDRANT
POST INDICATOR VALVE	POST INDICATOR VALVE
UTILITY POLE	UTILITY POLE
YARD LIGHT	YARD LIGHT
RIP RAP	RIP RAP
BOLLARD	BOLLARD
SIGN	SIGN
FIRE ALARM	FIRE ALARM
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE
LINE DESIGNATORS	
W	WATER MAIN
HANDRAIL	HANDRAIL
JERSEY BARRIER	JERSEY BARRIER
GUARD RAIL	GUARD RAIL
OHW	OVERHEAD WIRES
G	GAS LINE
WS	WATER SERVICE
E	UNDERGROUND ELECTRIC
D	STORM DRAIN LINE
S	SANITARY SEWER LINE
X	DRAINAGE SWALE
X	CHAIN LINK FENCE

REV	DATE	DESCRIPTION	BY	APP
1	11/30/21	DRAINAGE & UTILITIES	ESS	BCM
2	1/3/22	PEER REVIEW LETTER	ESS	BCM

MG
MCKENZIE
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Assinippi Office Park
150 Longwater Drive, Suite 101
Norwell, MA 02061
P: 781.792.3900
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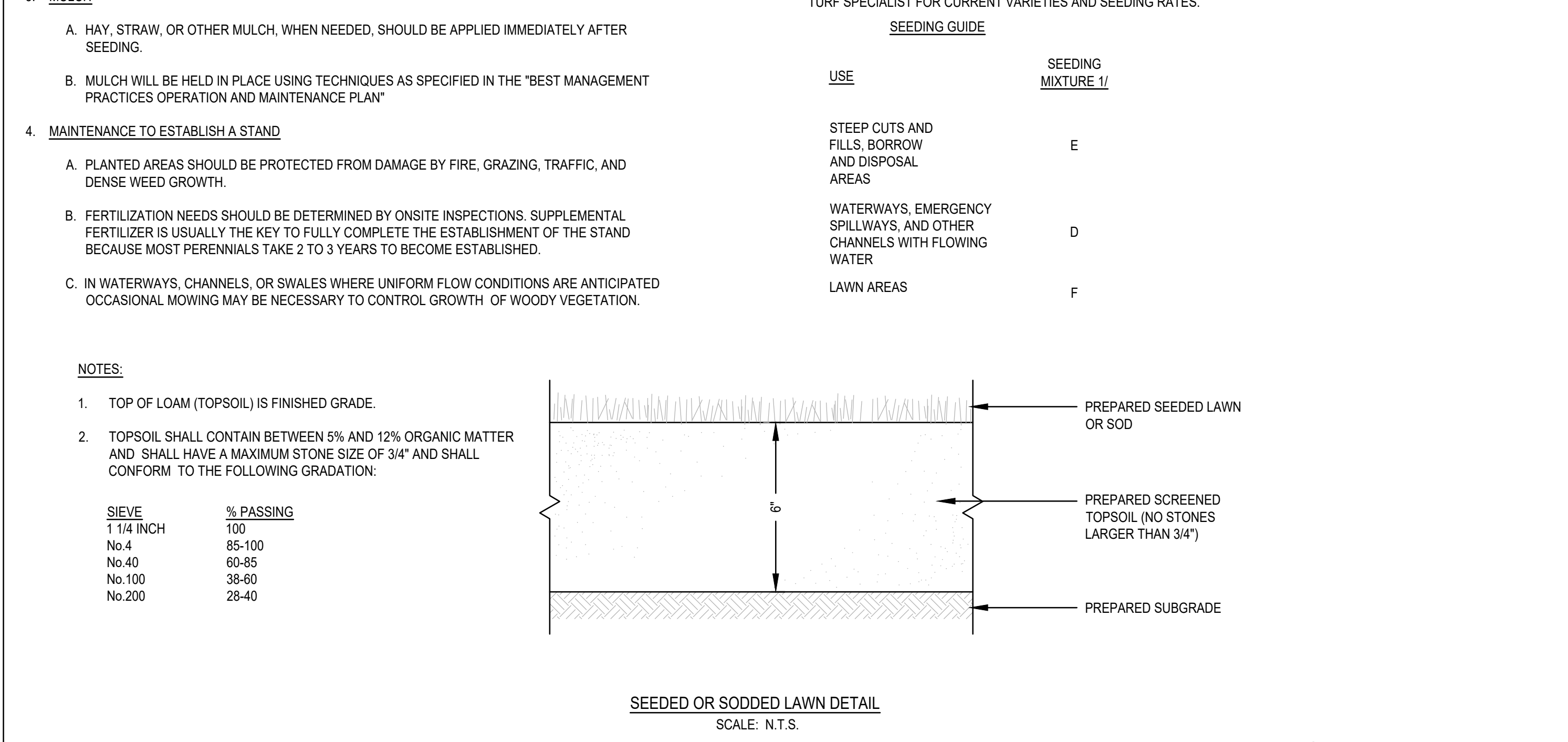
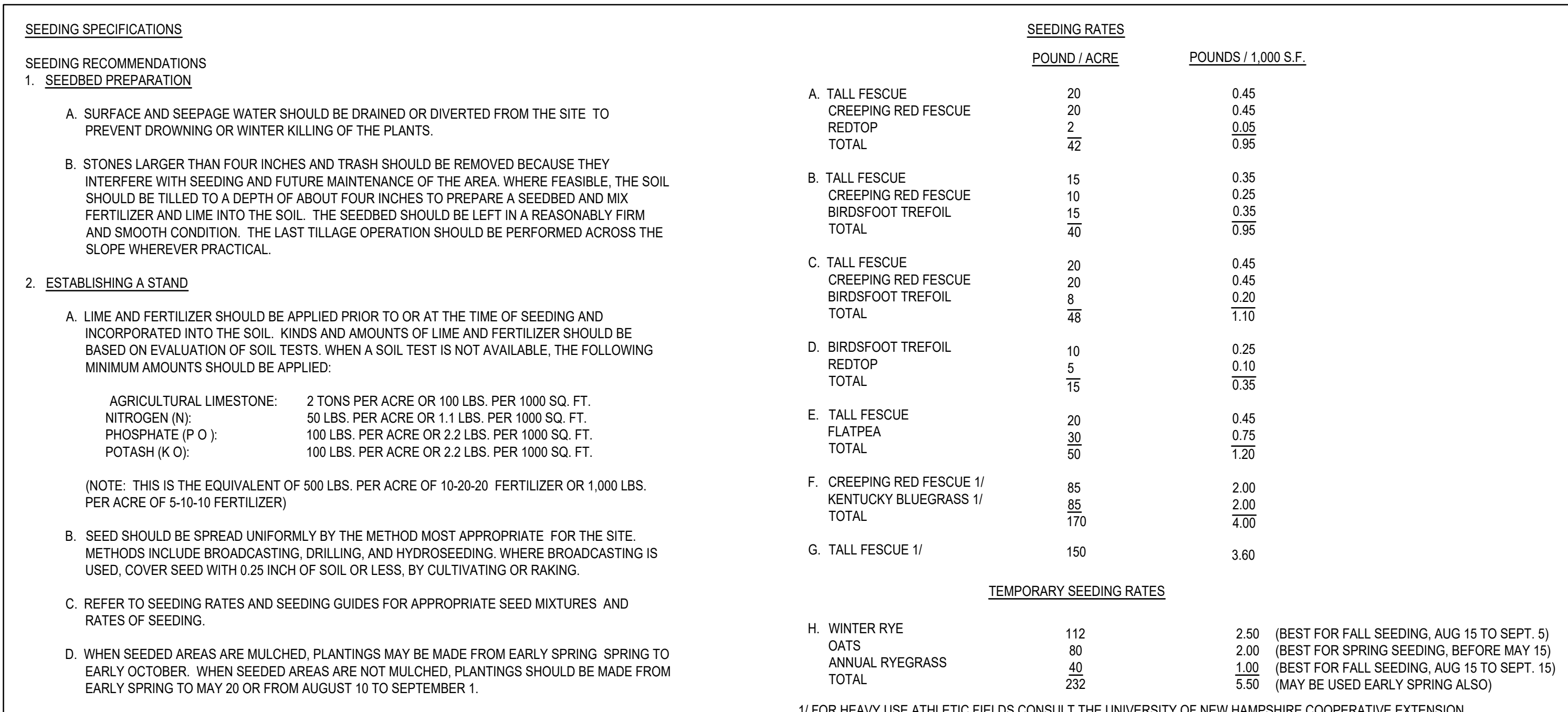
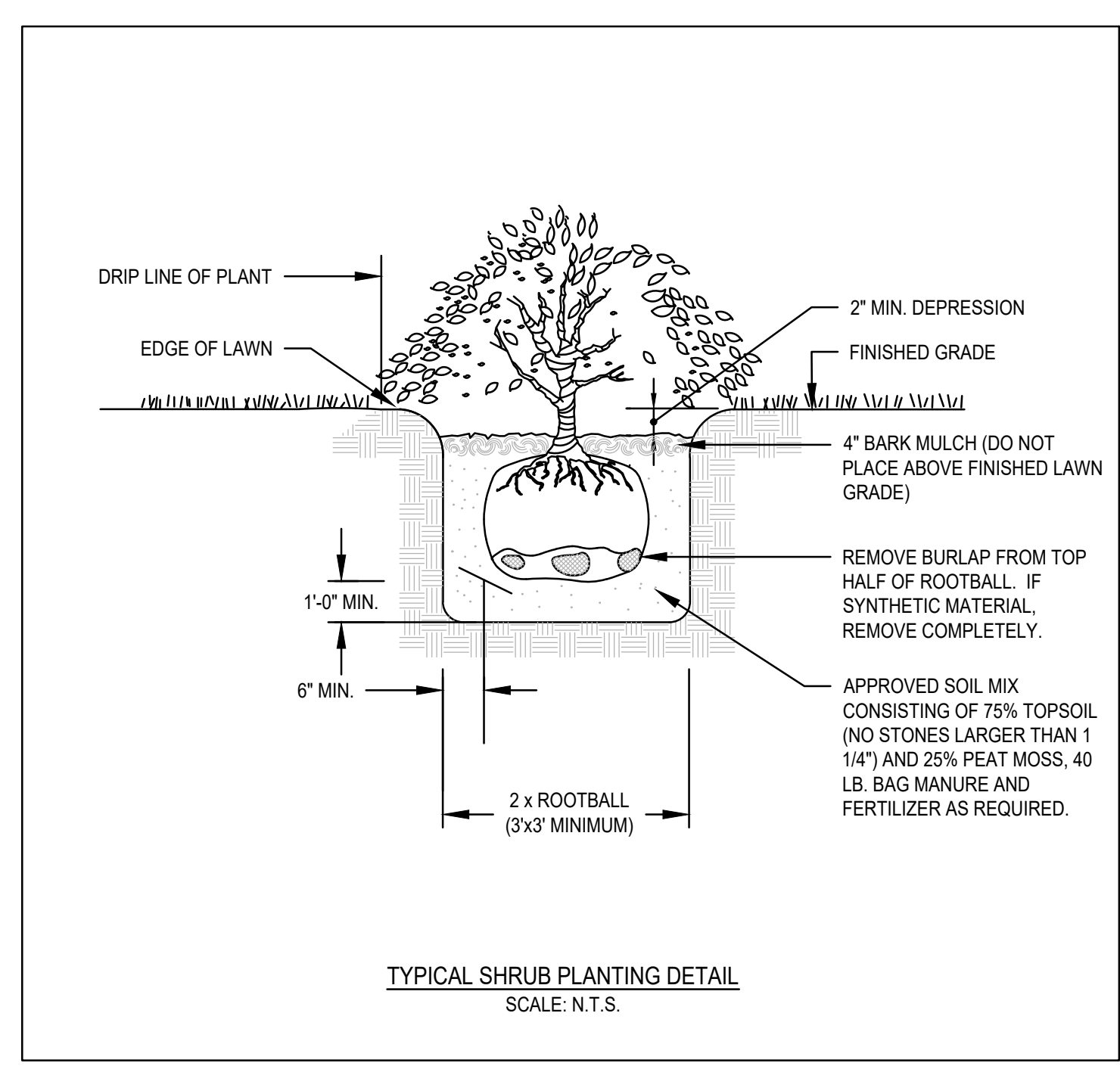
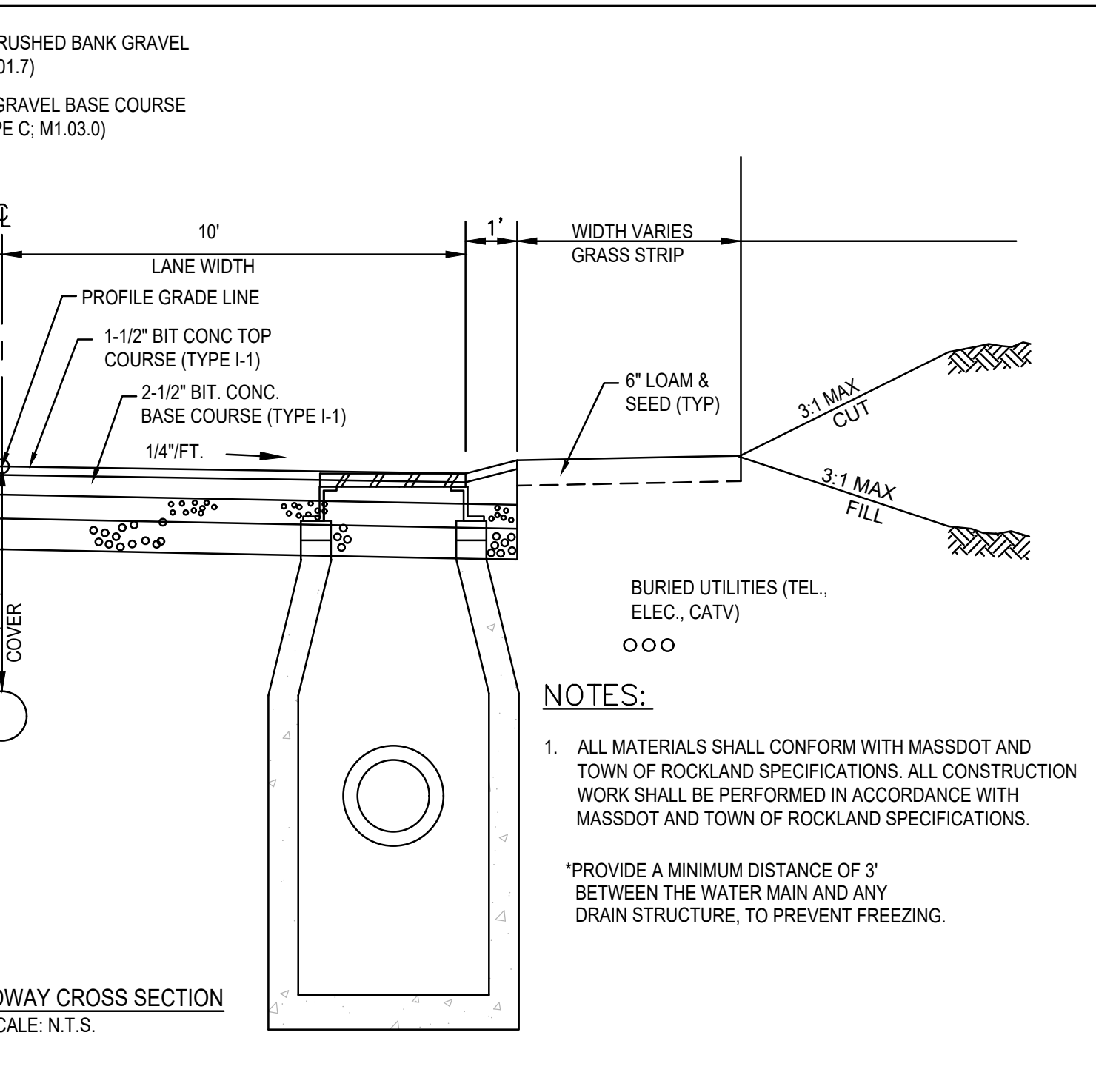
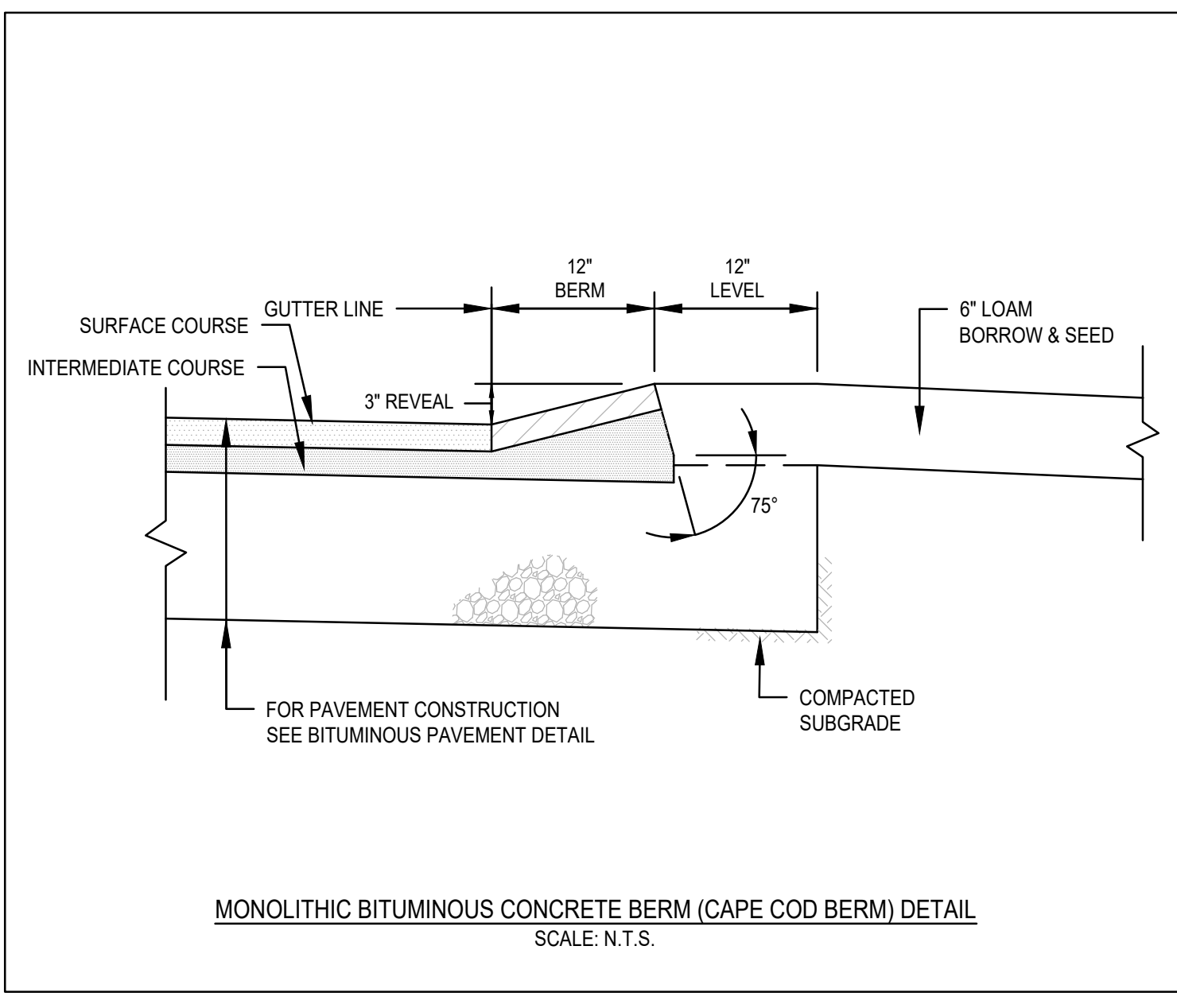
SITE DEVELOPMENT PLANS
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS

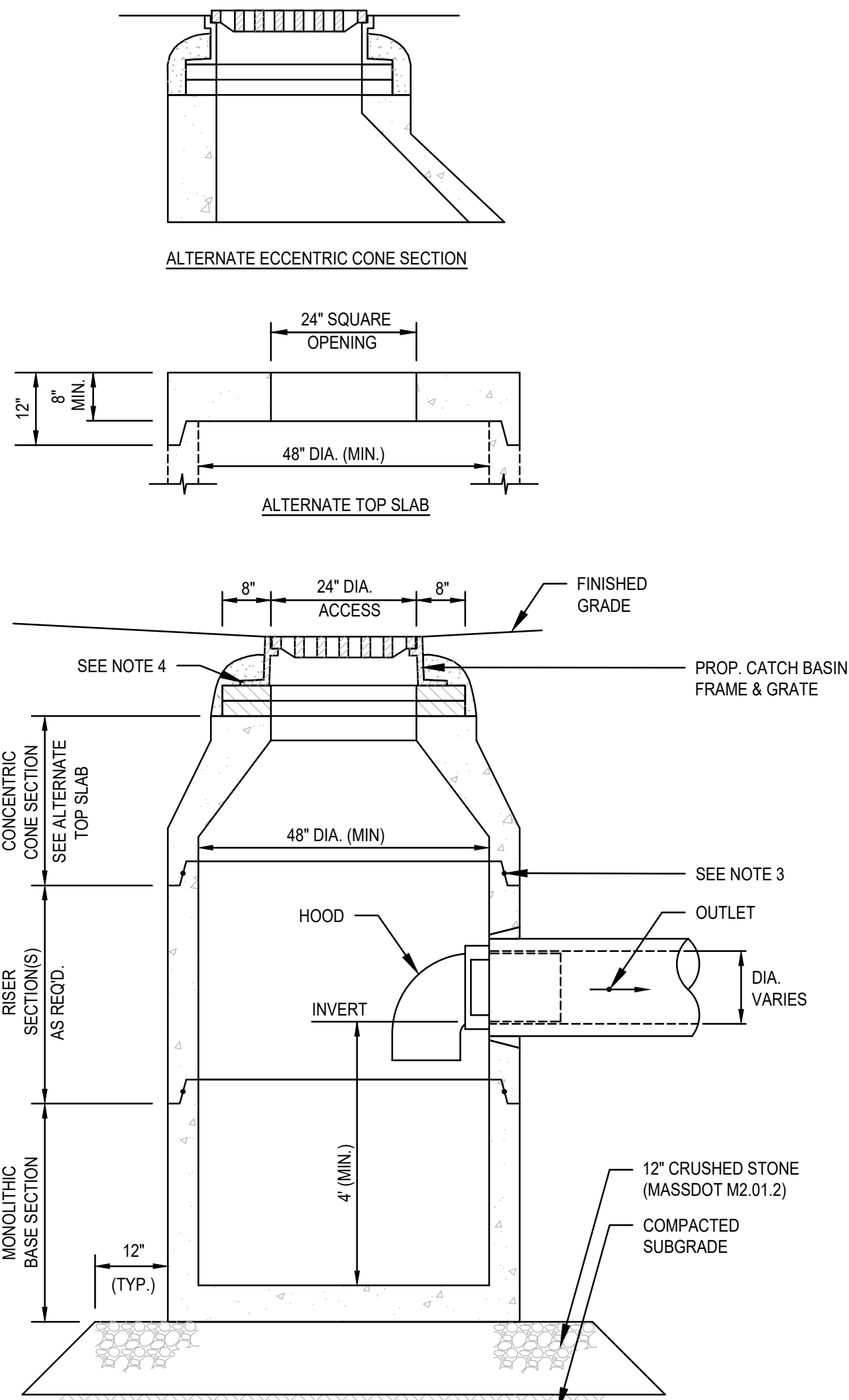
PROFESSIONAL ENGINEER:

OWNERS/APPLICANT:
WALL STREET DEVELOPMENT
CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

DRAWN BY: ESS
DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: OCTOBER 7, 2021
SCALE: 1"=20'
PROJECT NO.: 221-187
DWG. TITLE:
FIRE TRUCK
TURNING PLAN

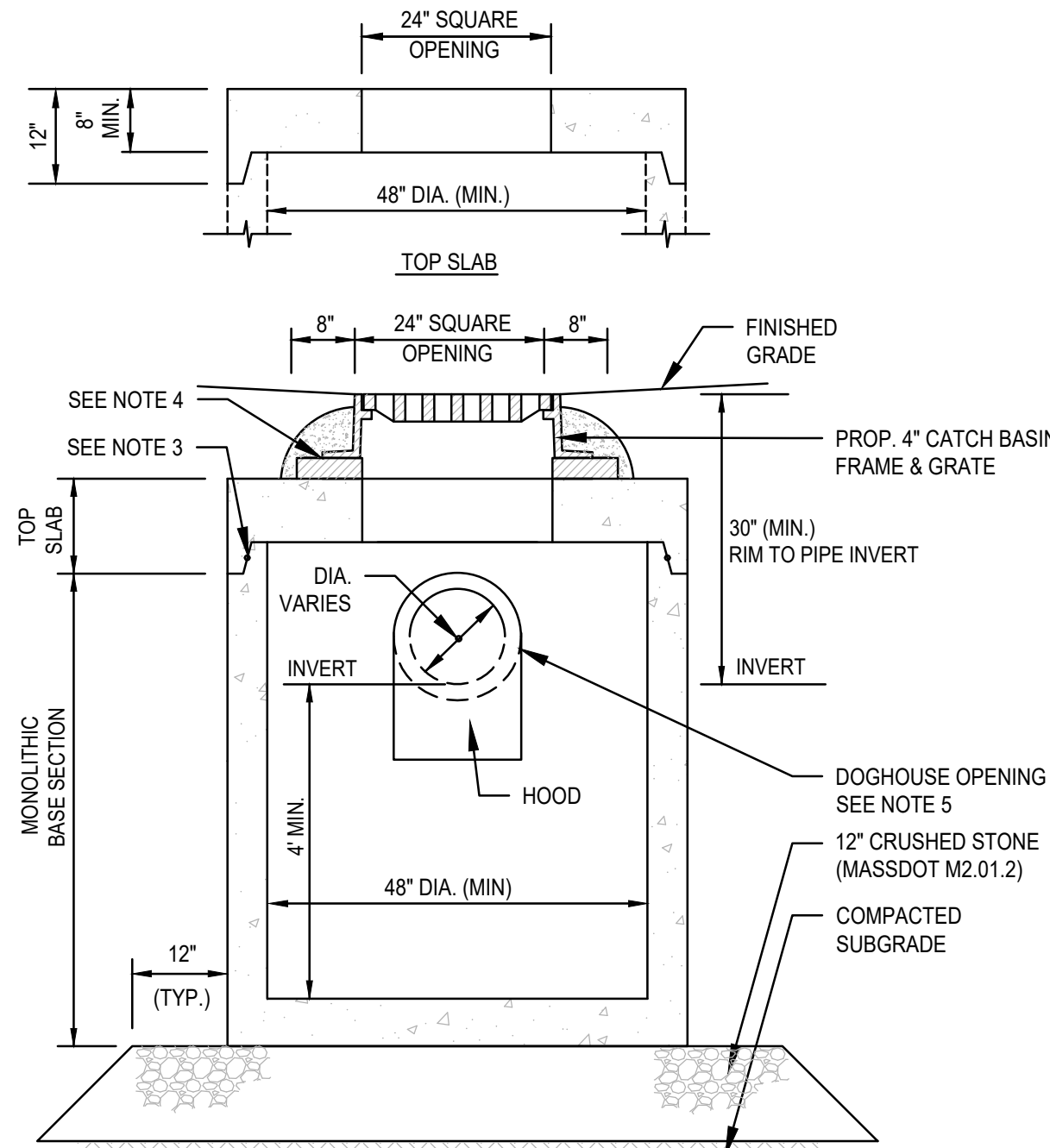
DWG. NO.:
T-1





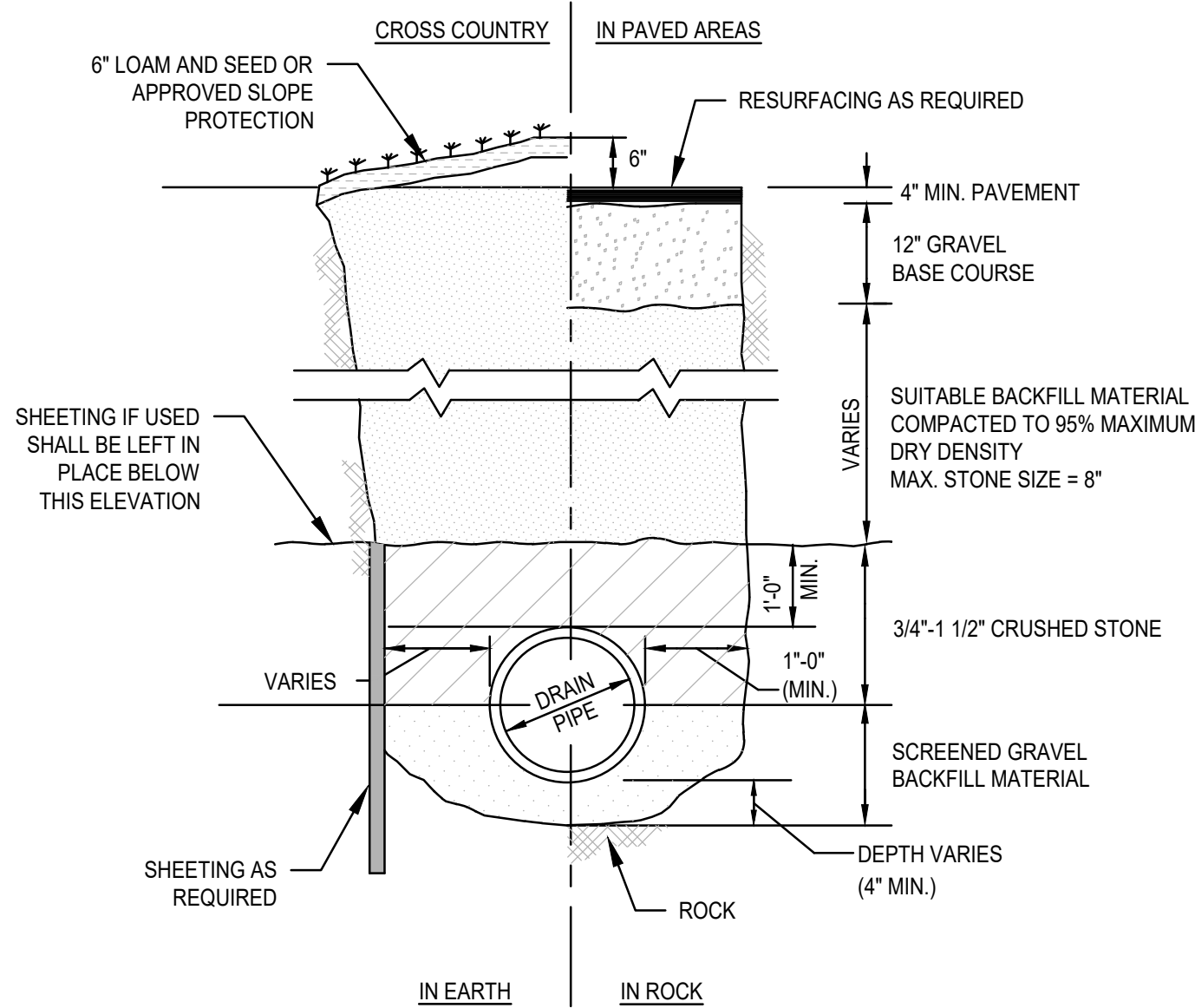
- NOTES:
- ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 - PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 - MORTAR ALL PIPE CONNECTIONS. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 - CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

CATCH BASIN W/HOOD
SCALE: N.T.S.

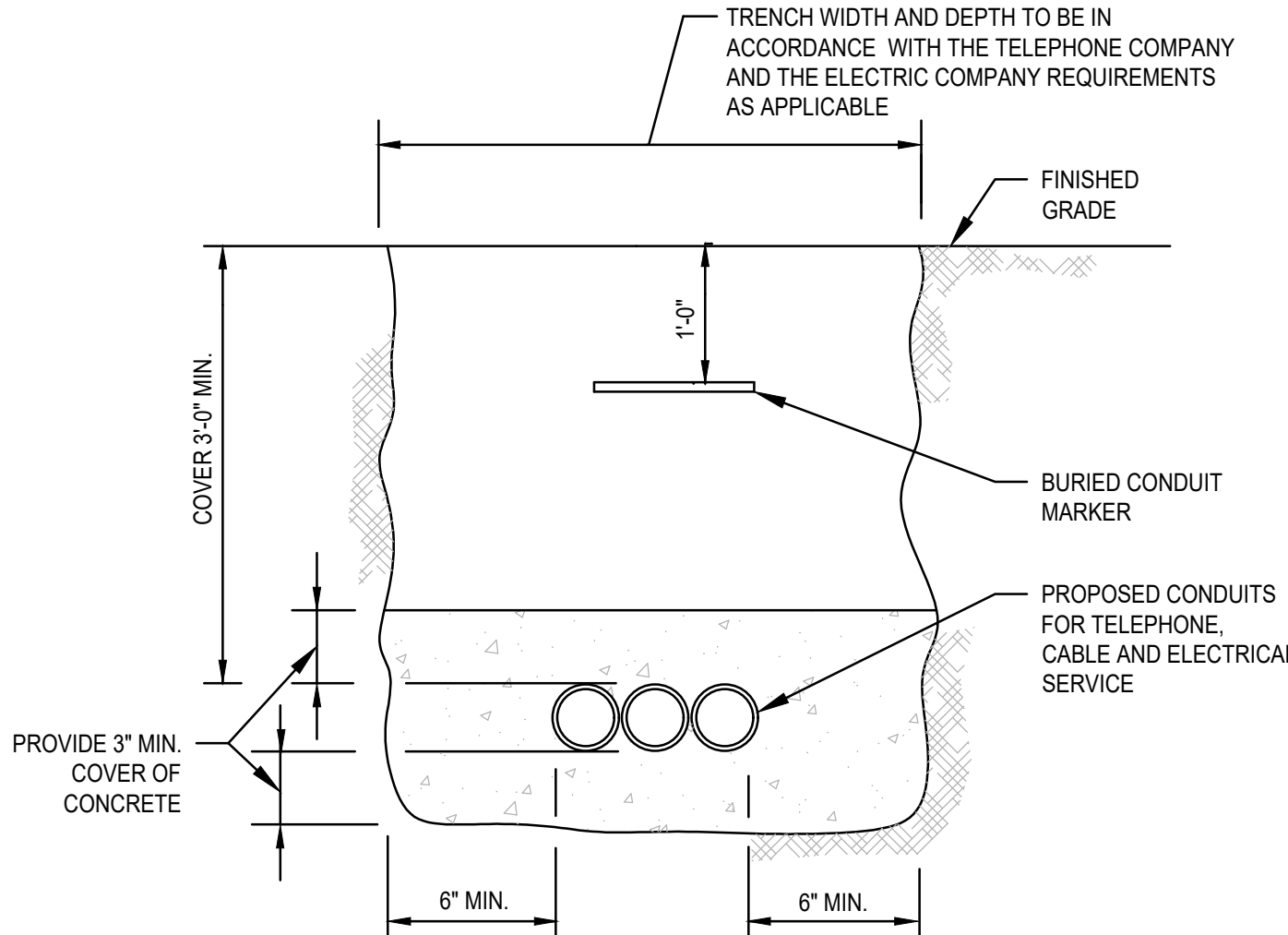


- NOTES:
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 - PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 - MORTAR ALL PIPE CONNECTIONS. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 - CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
 - PROVIDE DOG HOUSE OPENING FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. TOP SLAB SHOULD NOT REST DIRECTLY ON PIPE. MORTAR ALL PIPE CONNECTIONS.

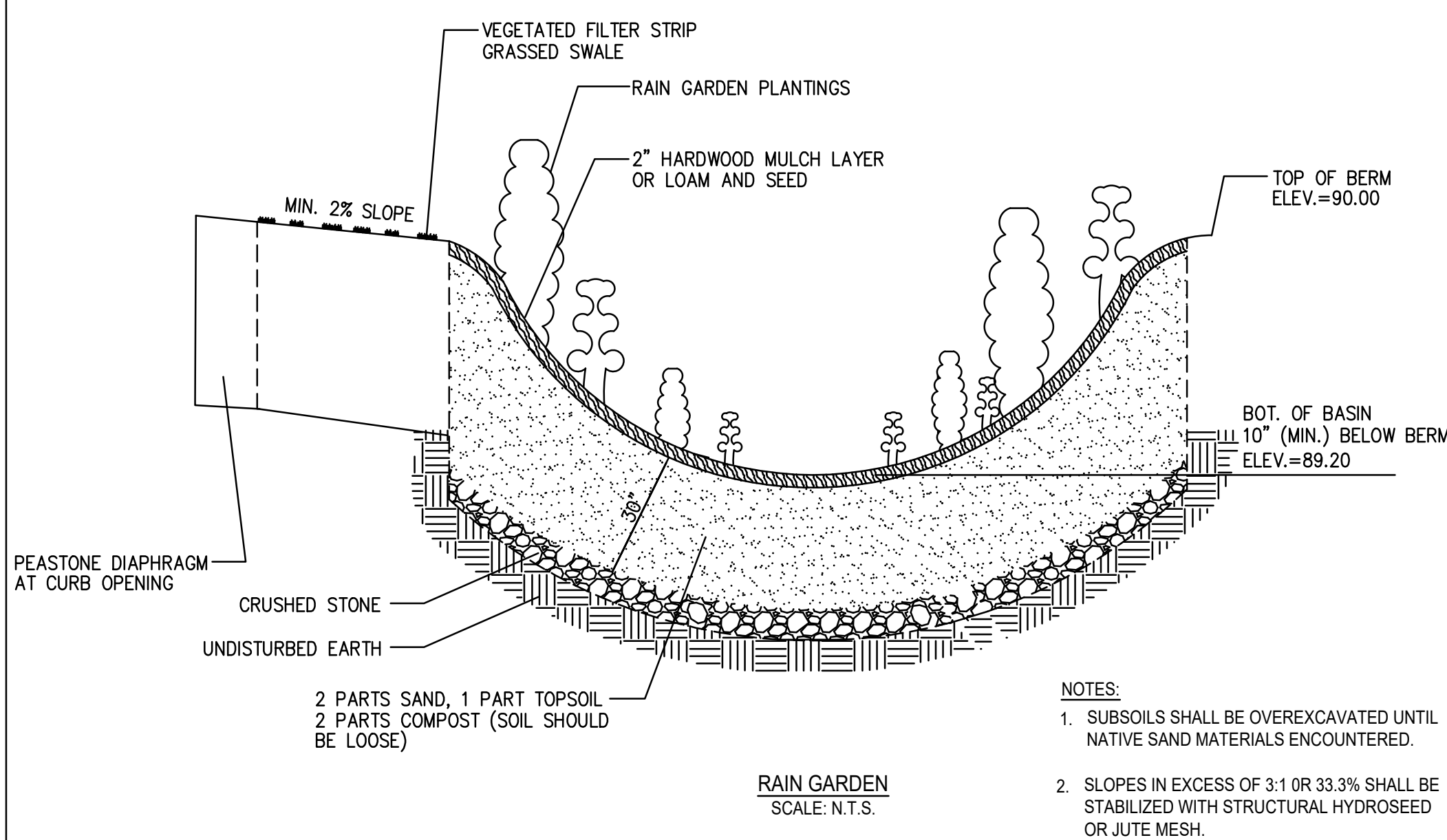
SHALLOW CATCH BASIN
SCALE: N.T.S.



TYPICAL DRAIN TRENCH DETAIL
SCALE: N.T.S.



TYPICAL ELECTRIC/TELEPHONE/CABLE CONDUIT (US-UTILITY SERVICE)
SCALE: N.T.S.



RAIN GARDEN
SCALE: N.T.S.

Hydro
International
Stormwater Solutions
94 Hutchins Drive
Portland, Maine 04102
Tel: (207) 756-6200
Fax: (207) 756-6212
stormwaterinquiry@hydro-int.com

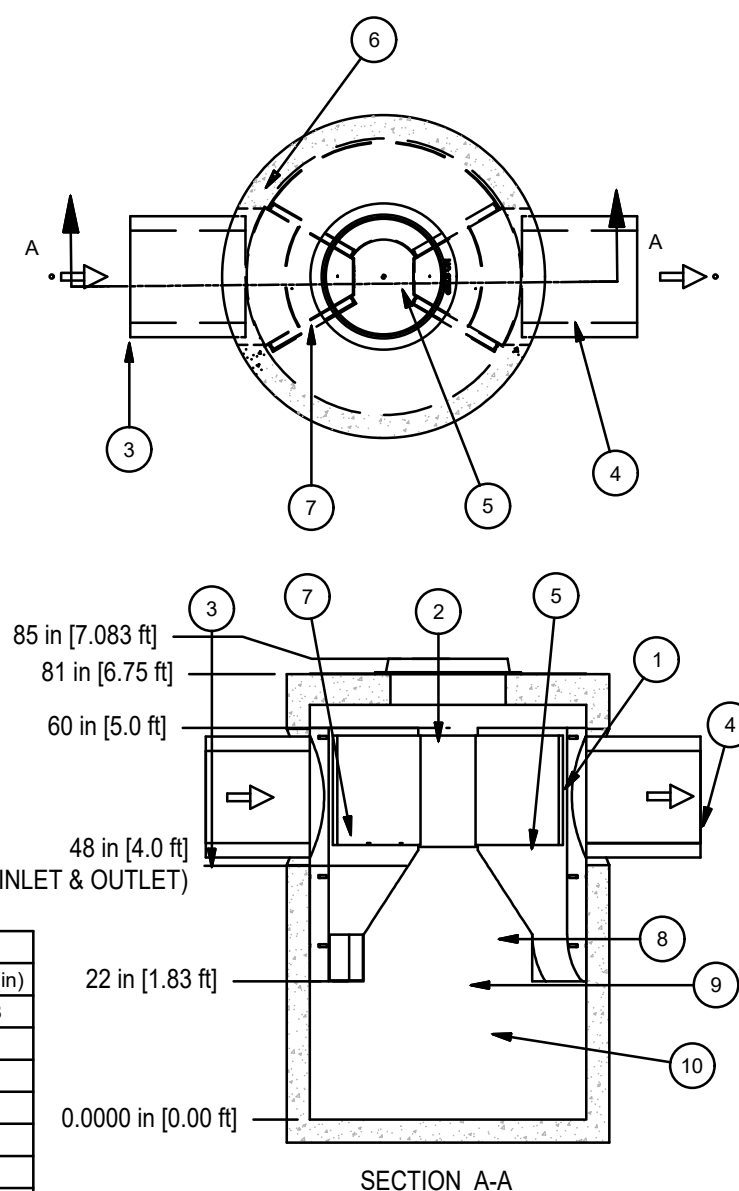
MANHOLE WALL AND SLAB THICKNESS ARE NOT TO SCALE.

CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.

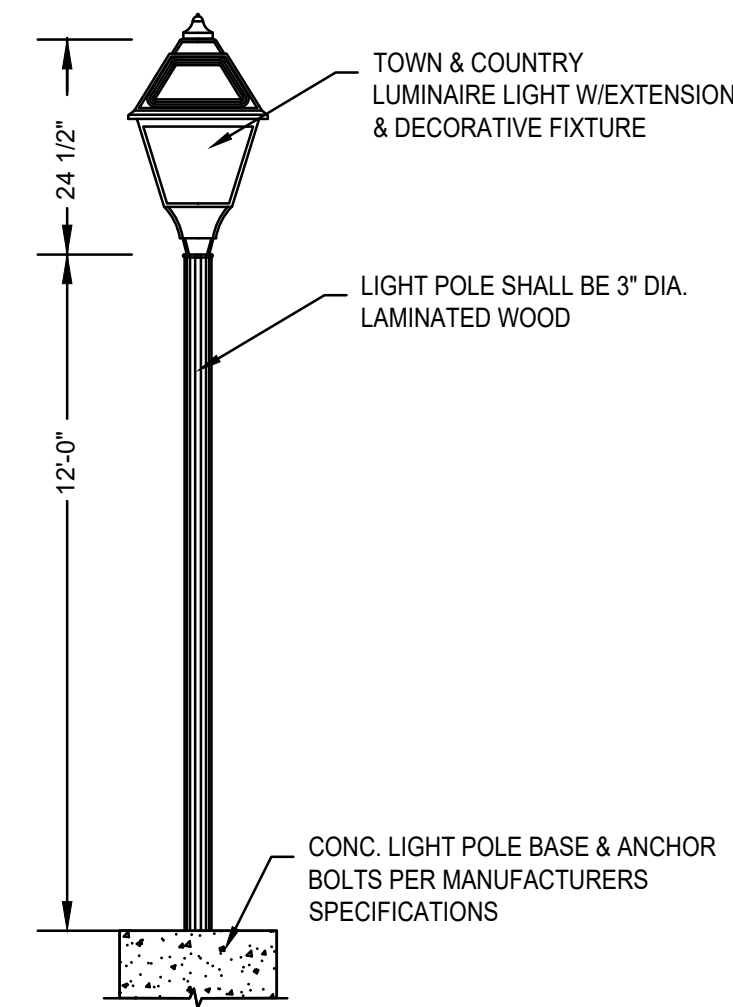
CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASING UNIT TO FABRICATION.

Parts List			
ITEM	QTY.	DESCRIPTION	SIZE (in)
1	2	I.D. CONCRETE MANHOLE	48
2	2	INLET CHUTE (W/ FLOATABLES TRAP)	
3	2	OUTLET CHUTE	
4	2	INLET PIPE (BY OTHERS)	12
5	2	OUTLET PIPE (BY OTHERS)	12
6	2	HIGH FLOW BYPASS	
7	2	FRAME AND COVER (OR GRATE)	

4' DIAMETER FIRST DEFENSE UNIT (4D-4HC)
SCALE: N.T.S.

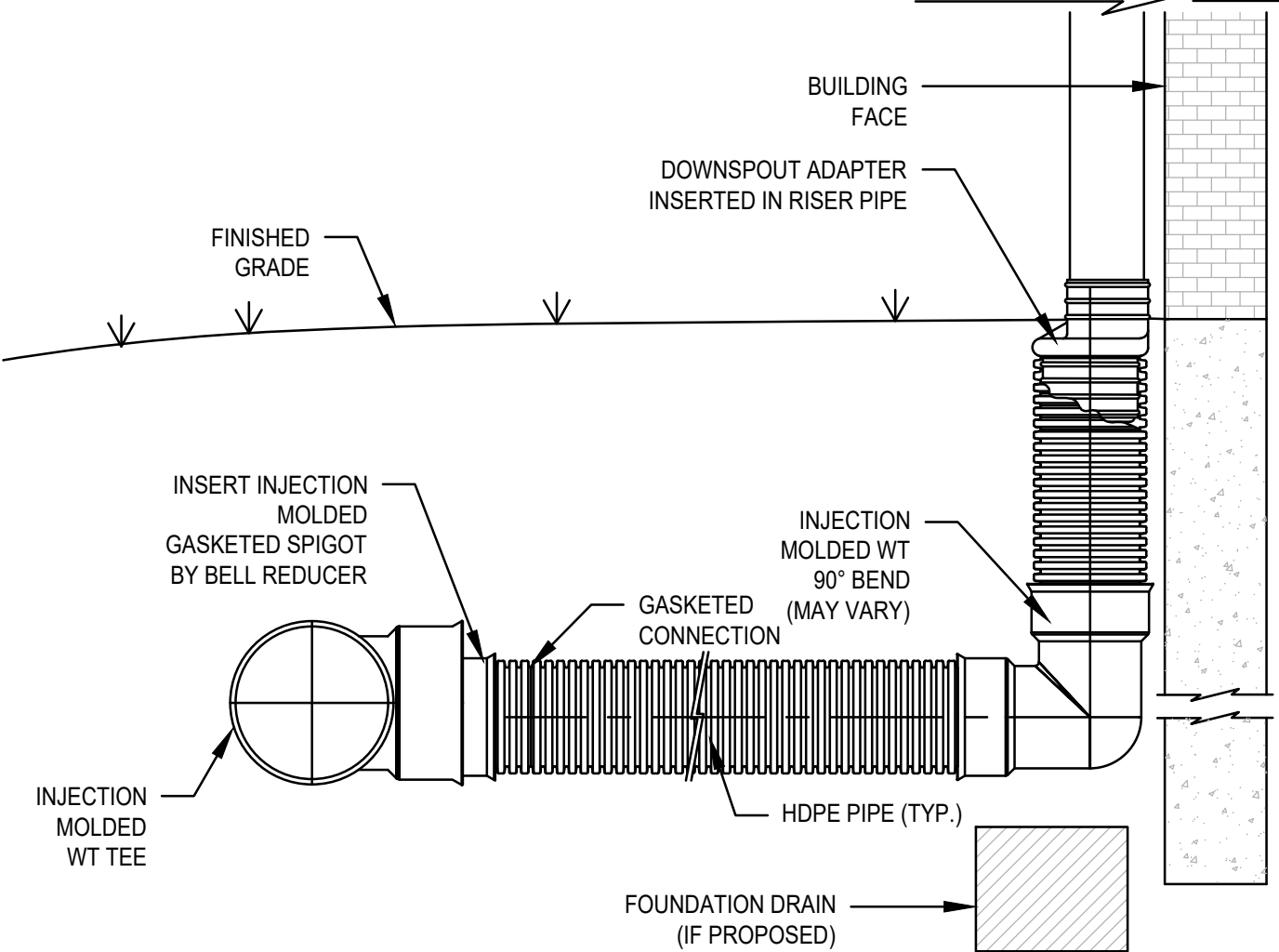


4' DIAMETER FIRST DEFENSE UNIT (4D-4HC)
SCALE: N.T.S.



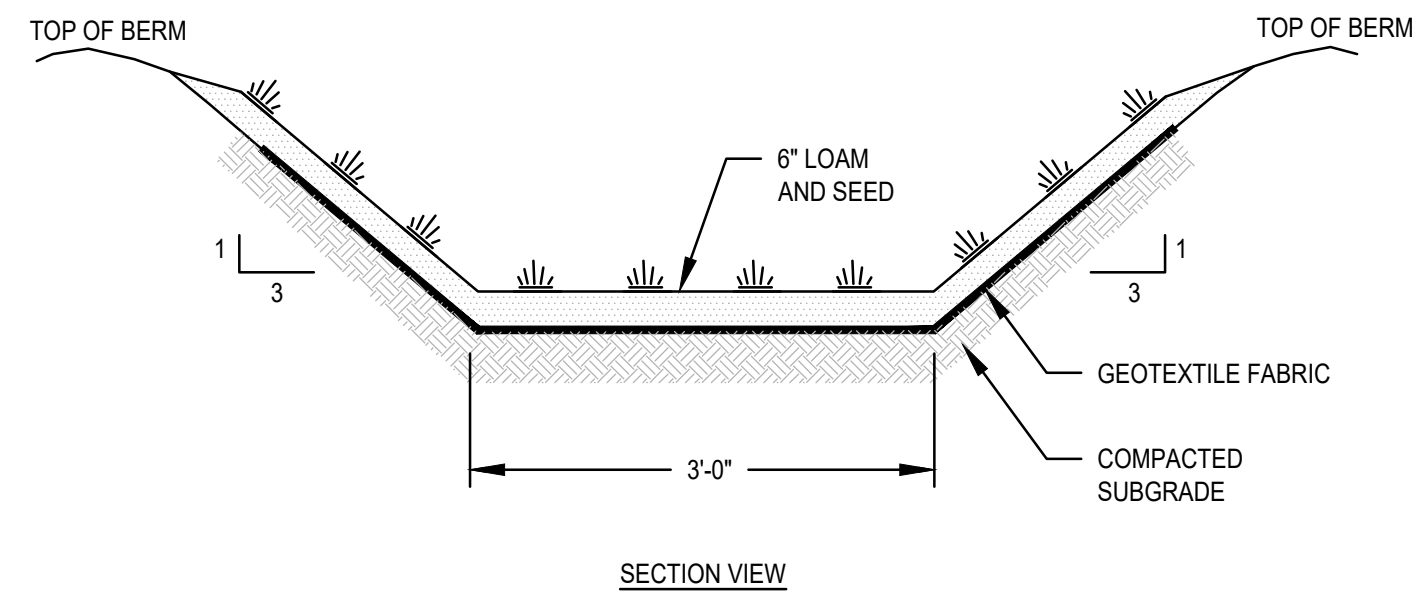
TYPICAL LIGHT POST DETAIL
SCALE: N.T.S.

NOTE: ALL LIGHT BULBS SHALL BE DARK-SKY COMPLIANT AND REFLECTED DOWN TO PREVENT LIGHT POLLUTION.



- NOTES:
- INJECTION MOLDED FITTING ARE AVAILABLE IN TEES, WYES, REDUCERS, 45° BENDS AND BELL/BELL COUPLERS.
 - WATERTIGHT (WT) JOINTS SHOWN. SOIL-TIGHT (ST) FITTINGS ARE ALSO AVAILABLE.

ROOF LEADER CONNECTION DETAIL
SCALE: N.T.S.



GRASSED SWALE DETAIL
SCALE: N.T.S.

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M:\MEG\2021 PROJECTS\221-187 WALL ST. DEV. CORP. - 320 CONCORD ST., ROCKLAND\DWGS\221-187 DETAIL SHEETS.DWG

REV	DATE	DESCRIPTION	BY	APP
1	11/30/21	DRAINAGE & UTILITIES	ESS	BCM
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SITE DEVELOPMENT PLANS
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS

PROFESSIONAL ENGINEER:



OWNERS/APPLICANT:
WALL STREET DEVELOPMENT
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2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

DRAWN BY: ESS
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PROJECT NO.: 221-187
DWG. TITLE:

CONSTRUCTION
DETAILS

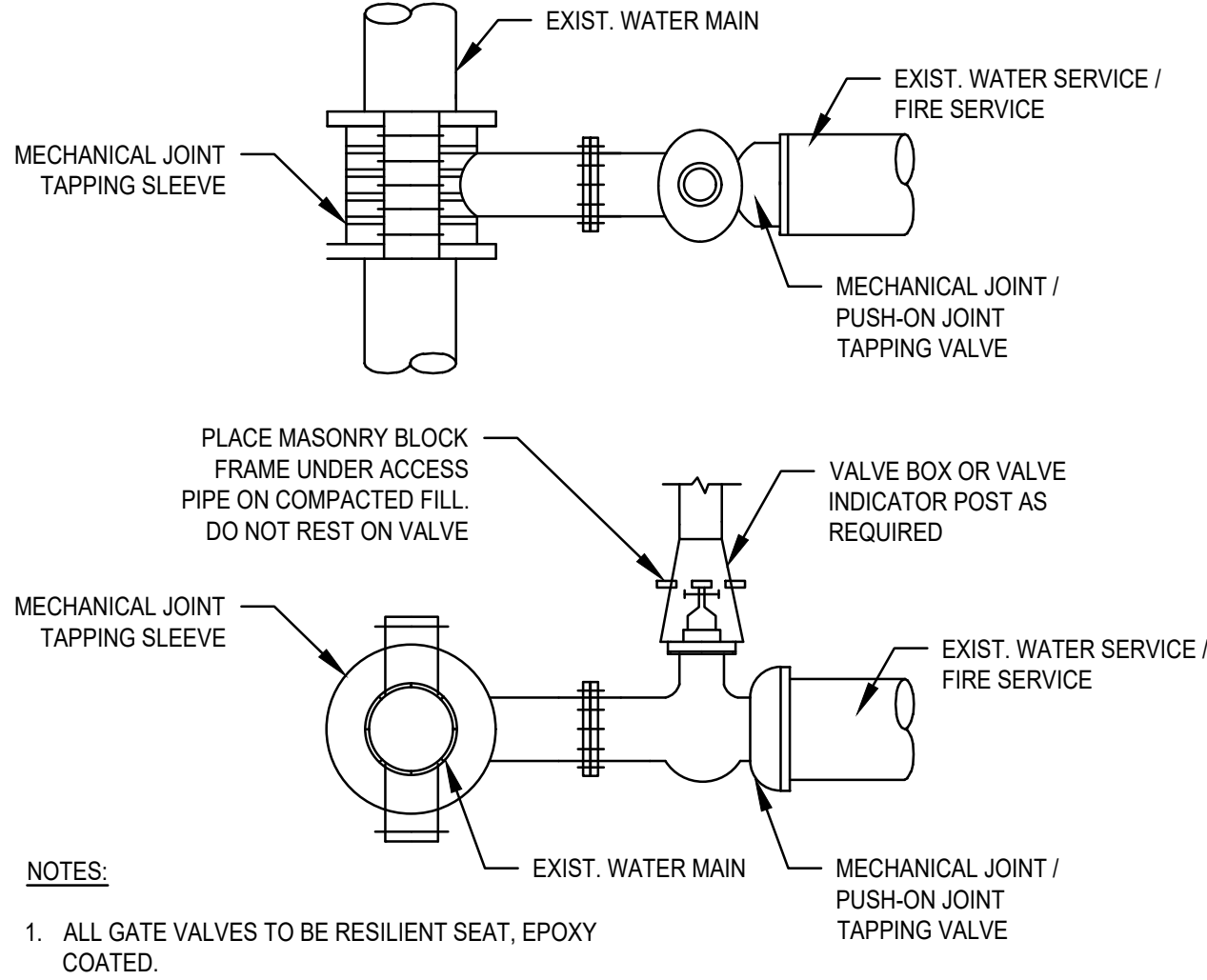
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D-2

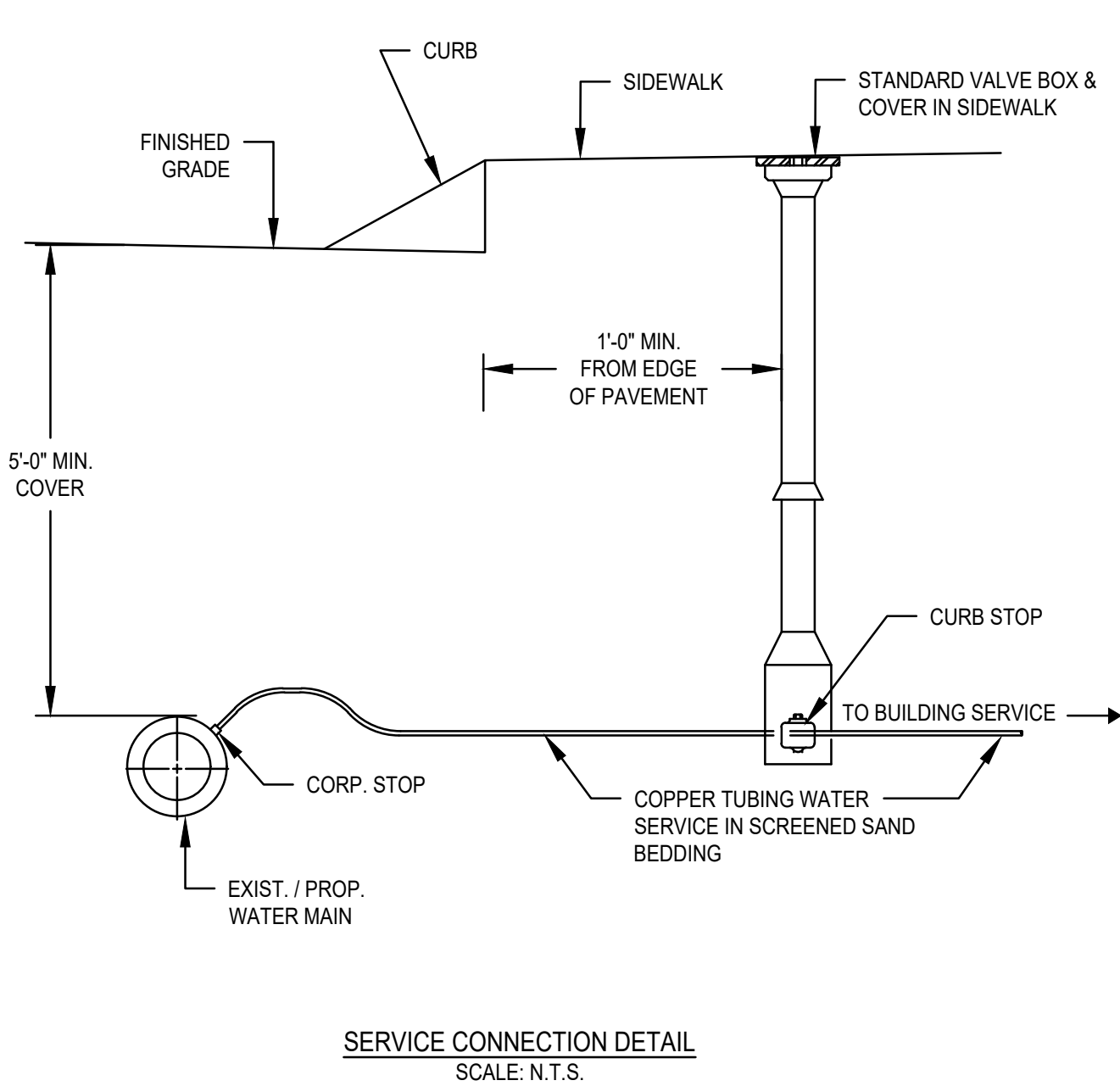
PERMIT PLAN SET

GENERAL NOTES

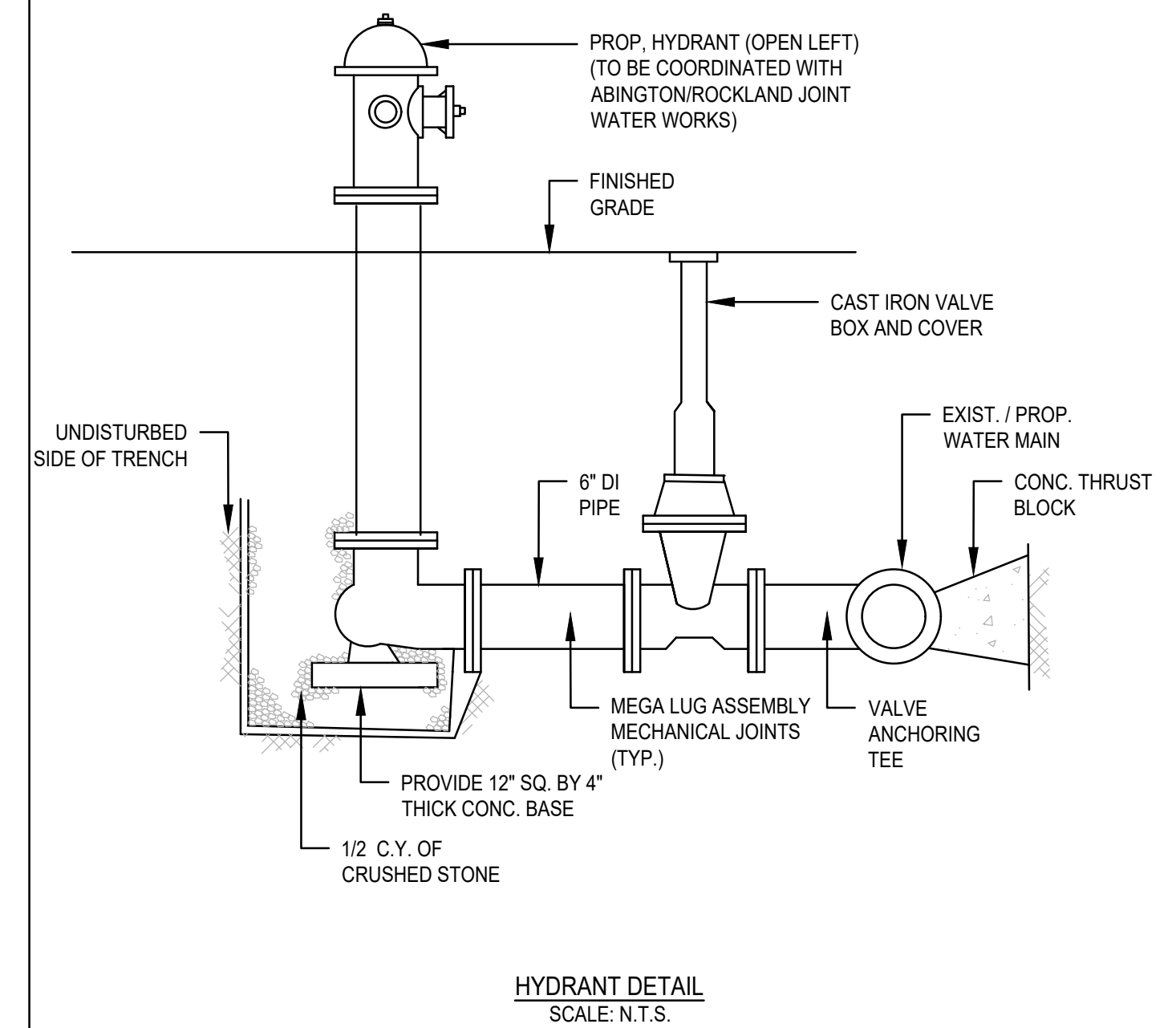
- IF SHEETING IS USED, IT SHALL BE CUT OFF NO MORE THAN 12" ABOVE TOP OF PIPE.
- ALL PIPES SHALL BE PRESSURE TESTED AT 200 PSI WORKING PRESSURE FOR A MINIMUM DURATION OF TWO HOUR.
- WATER SYSTEM IS TO BE DISINFECTED TO 50 P.P.M. AVAILABLE CHLORINE AND AFTER 24 HOURS TO 25 P.P.M. OR AS REQUIRED BY ABINGTON ROCKLAND WATER SUPERINTENDENT/ENGINEER.
- WATER PIPE IS TO BE CEMENT LINED DUCTILE IRON "TYTON" OR EQUAL TYPE JOIN, CONFORMING TO A.N.S.I./A.W.W.A. C150/A21.50, CLASS 52, AS APPROVED BY THE TOWN'S WATER SUPERINTENDENT/ENGINEER.
- ALL PIPING SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH A.W.W.A. STANDARDS PRIOR TO PAVING IF PAVING ABOVE TRENCH IS REQUIRED.
- BACKFILL IS TO BE COMPACTED TO 90% MAXIMUM DRY DENSITY BY AASHTO T-180 D.
- ALL WATER PIPE SHALL BE LAID WITH A MINIMUM OF 5 FEET OF COVER OF APPROVED MATERIALS.
- RESULTS FROM PRESSURE TESTING AND DISINFECTION SHALL BE FURNISHED TO THE ABINGTON ROCKLAND JOINT WATER WORKS AND DIRECTOR OF PUBLIC WORKS FOR APPROVAL PRIOR TO WATER BEING TURNED ON.
- ALL WORK SHALL BE IN CONFORMANCE WITH ABINGTON ROCKLAND JOINT WATER WORKS STANDARDS.
- ALL PERMITS REQUIRED FOR STREET OPENINGS AND WATER MAIN TAPPING MUST BE OBTAINED.
- NO WATER WILL BE TURNED ON IN THE PROJECT WITHOUT ABINGTON ROCKLAND JOINT WATER WORKS APPROVAL.



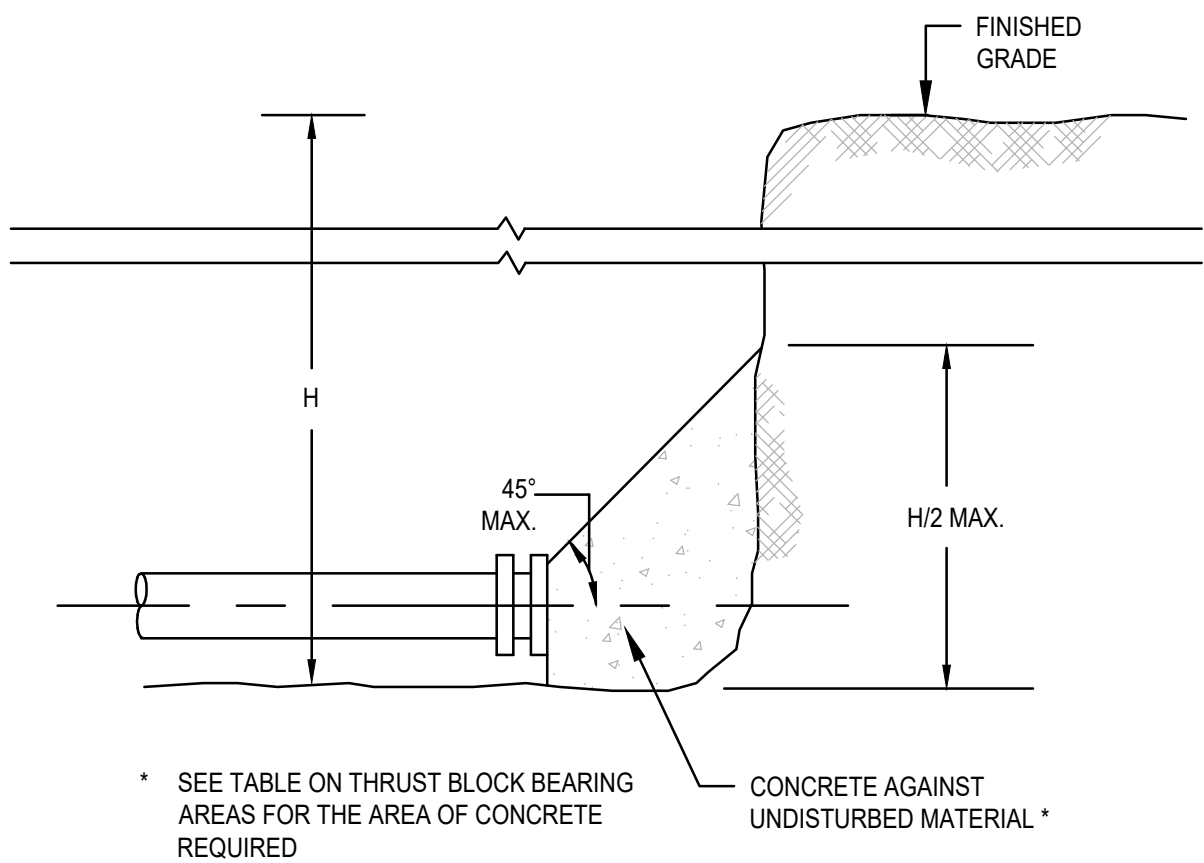
TYPICAL TAPPING SLEEVE AND VALVE DETAIL
SCALE: N.T.S.



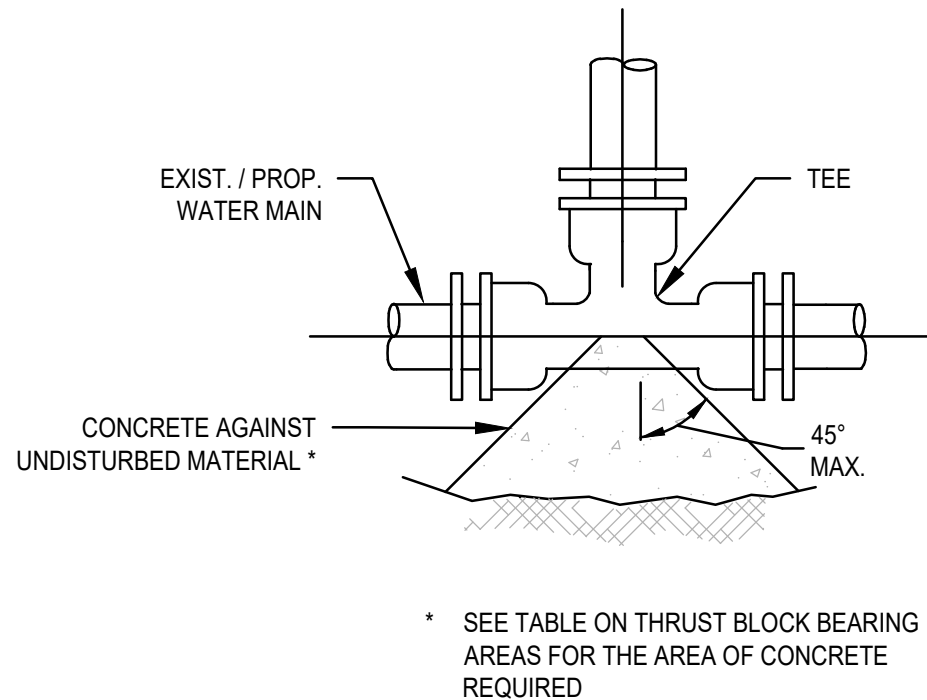
SERVICE CONNECTION DETAIL
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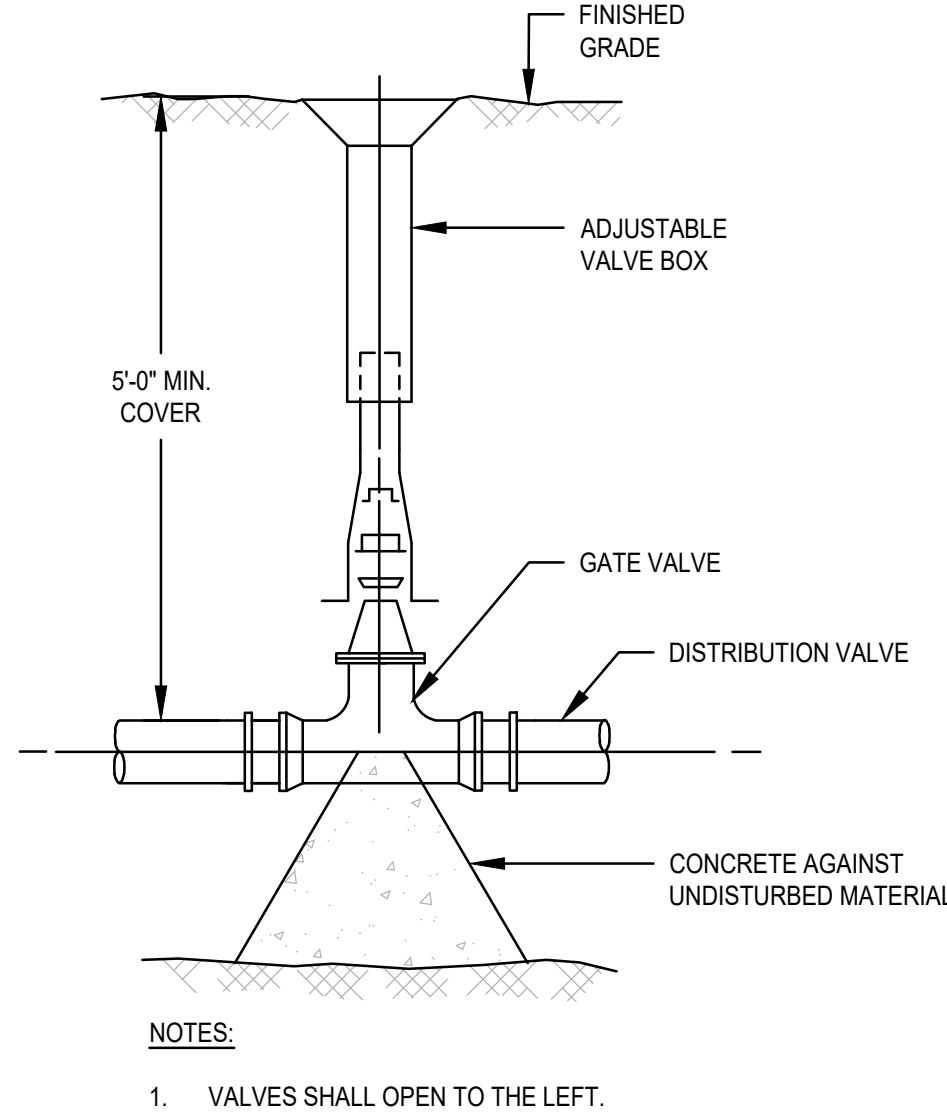
HYDRANT DETAIL
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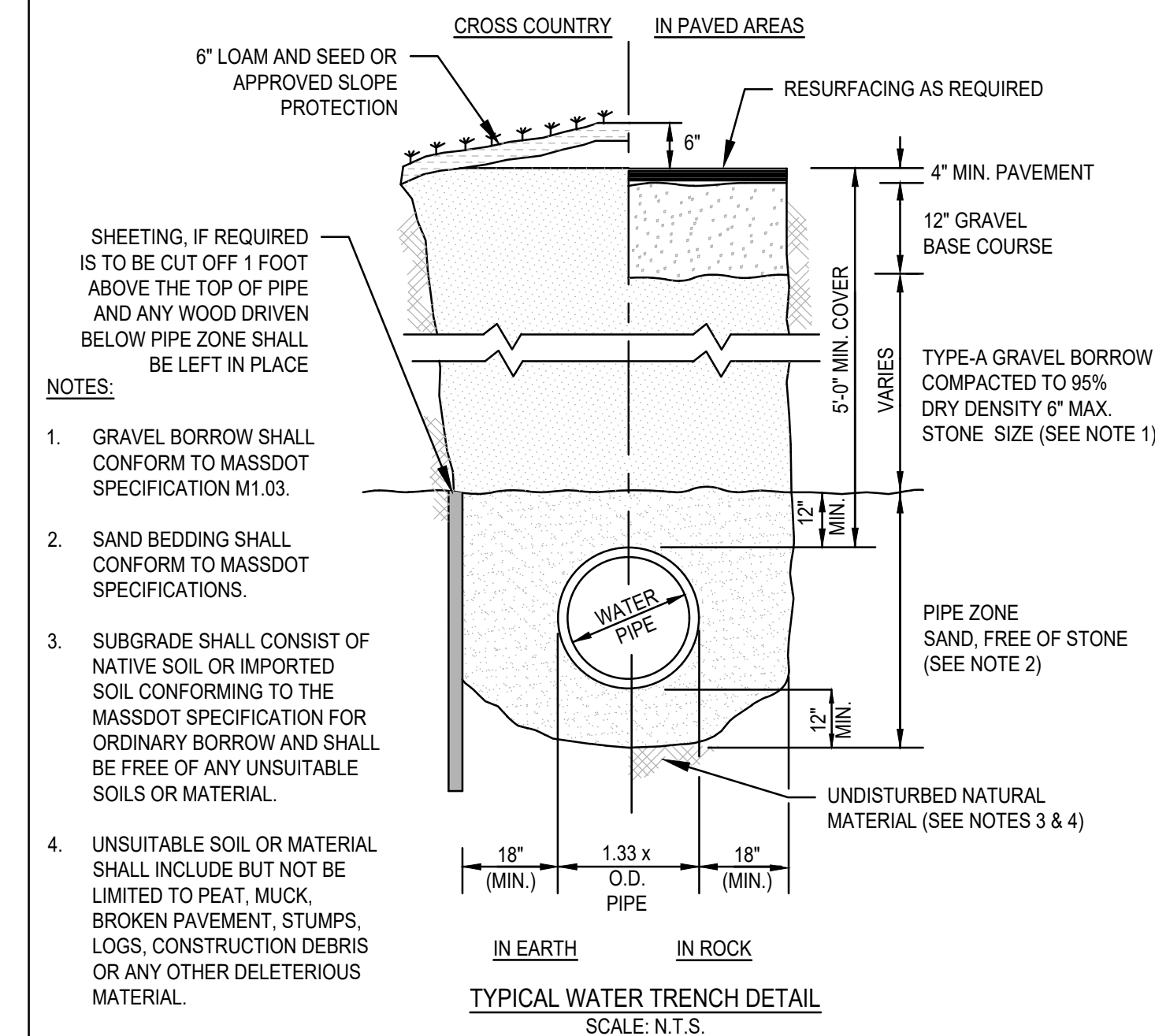
THRUST WATER MAIN PLUG
SCALE: N.T.S.



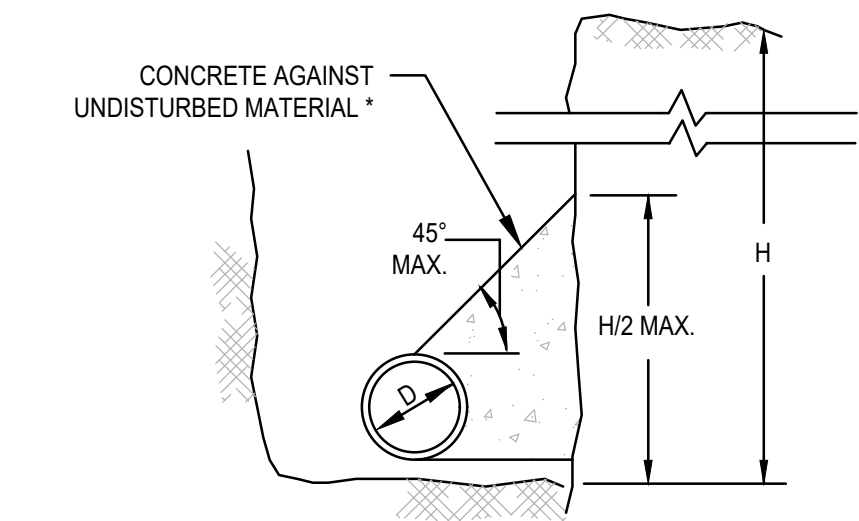
TYPICAL WATER MAIN TEE THRUST BLOCK DETAIL
SCALE: N.T.S.



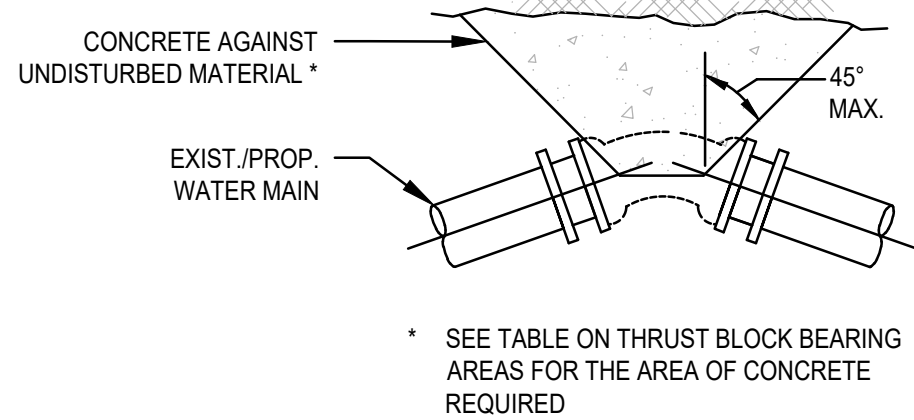
WATER GATE DETAIL
SCALE: N.T.S.



TYPICAL WATER TRENCH DETAIL
SCALE: N.T.S.



THRUST WATER MAIN THRUST BLOCK SECTION DETAIL
SCALE: N.T.S.



THRUST WATER MAIN BEND THRUST BLOCK DETAIL
SCALE: N.T.S.

NOTES:

- FOR FITTINGS WITH LESS THAN 45° DEFLECTION, USE BEARING AREAS FOR 45° BEND.
- BEARING AREAS BASED ON HORIZONTAL PASSIVE SOIL PRESSURE OF 2000 P.S.F. AND INTERNAL WATER PRESSURE OF 150 P.S.I.G. JOINTS SHALL NOT BE ENCASED IN CONCRETE. BEARING AREAS MAY BE DREGARDED FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE CROWN OF THE PIPE. HOWEVER, CONCRETE BACKING SHALL BE PLACED BETWEEN THE PIPE AND THE ROCK FACE.
- THE CONTRACTOR SHALL SUBMIT 2 WEEKS IN ADVANCE OF PLACEMENT, WORKING DRAWINGS FOR EACH THRUST BLOCK TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- ALL VALVES AND FITTINGS SHALL BE RODDED TOGETHER.

ASSUMPTIONS:

* TYPE OF SOIL IS MEDIUM CLAYEY, 6 OR MORE BLOWS PER FOOT, OR LOOSE GRANULAR, 9 OR MORE BLOWS PER FOOT. SOIL CONDITIONS OTHER THAN THOSE GIVEN WILL REQUIRE LARGER BEARING AREAS.

THRUST BLOCK BEARING AREAS FOR WATER PIPE			
TABLE OF BEARING AREAS IN SQ. FT. AGAINST UNDISTURBED MATERIAL FOR WATER MAIN FITTINGS*			
SIZE OF MAIN (IN.)	90 ° BEND	TEES AND PLUGS	45 ° BEND
6	4	2.5	2
8	6	4	3
12	12	9	7
16	21	16	12

THRUST BLOCK DETAILS
SCALE: N.T.S.

BY	APP	DESCRIPTION	DATE	REV
ESS	BCM	DRAINAGE & UTILITIES	11/30/21	1
ESS	BCM	PEER REVIEW LETTER	1/3/22	2

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SITE DEVELOPMENT PLANS
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS

PROFESSIONAL ENGINEER:



OWNERS/APPLICANT:
WALL STREET DEVELOPMENT CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

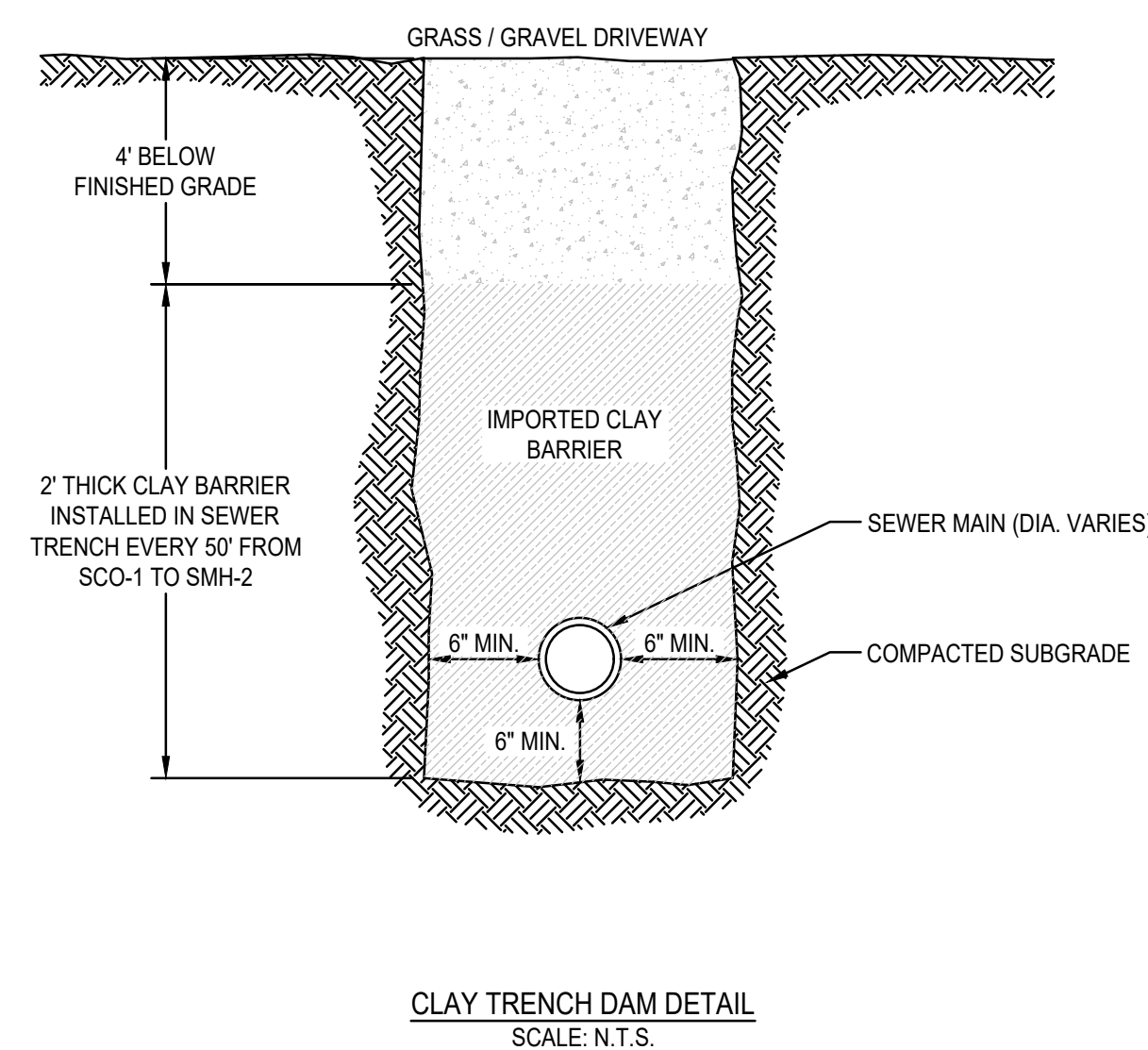
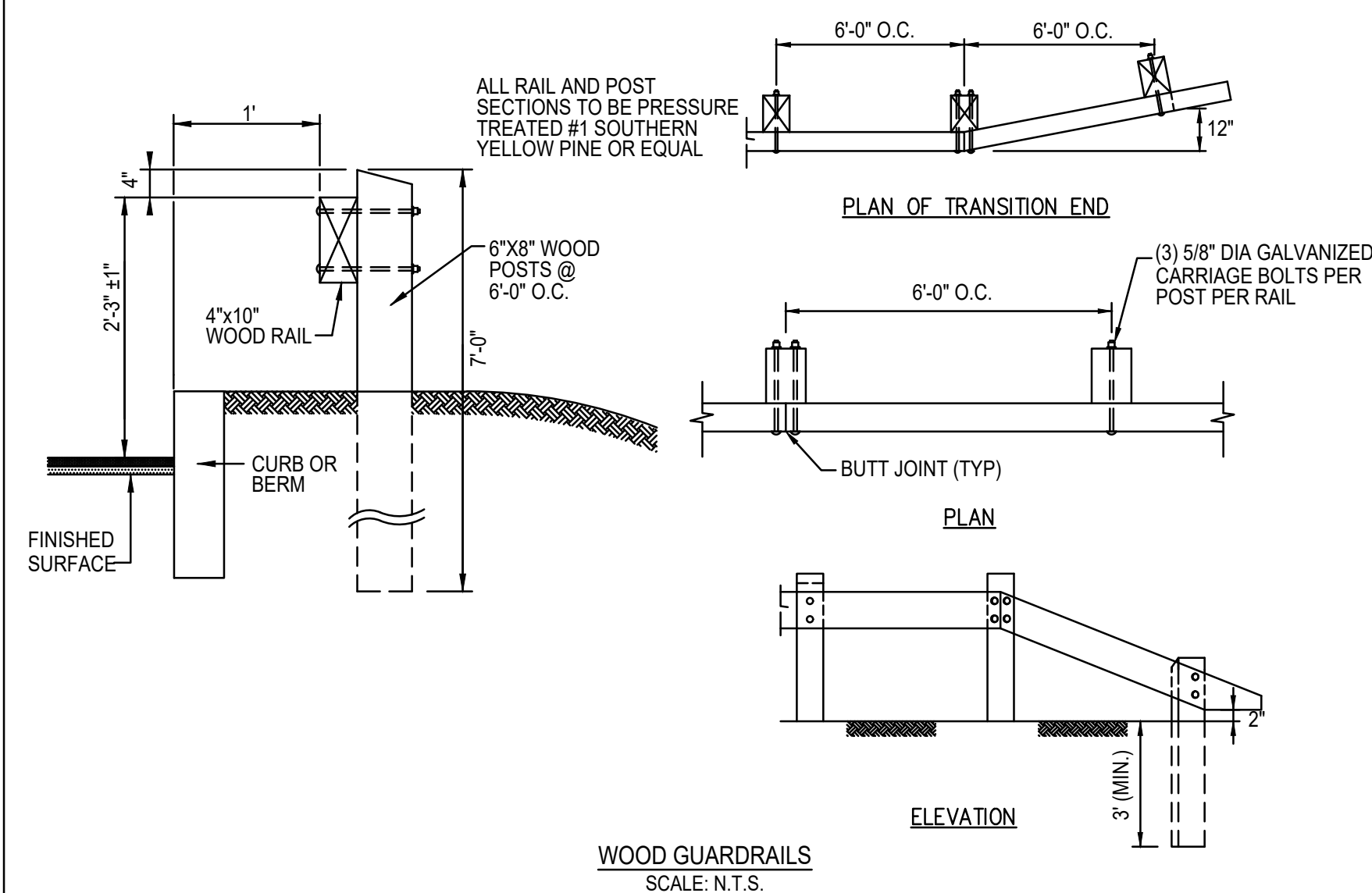
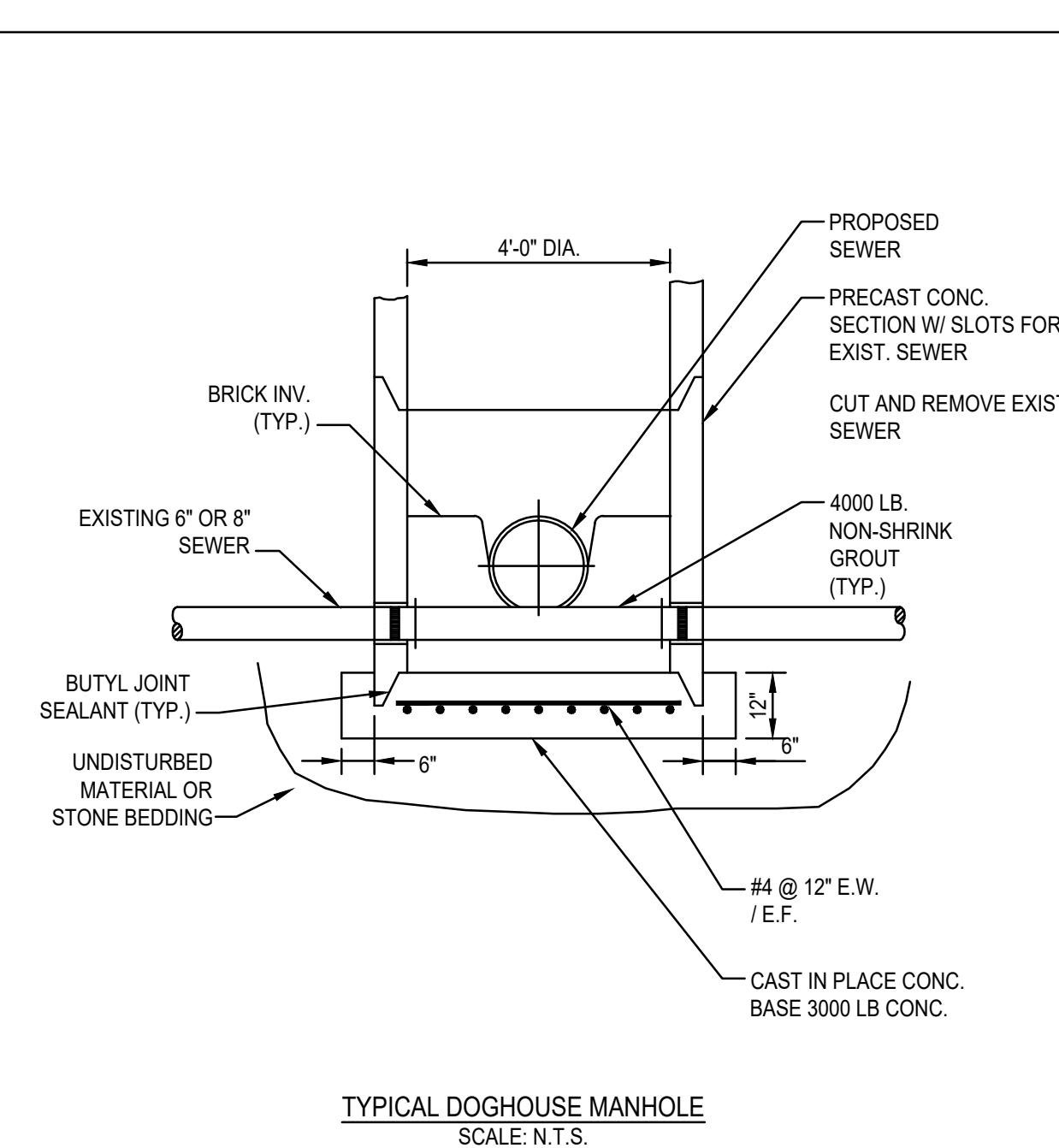
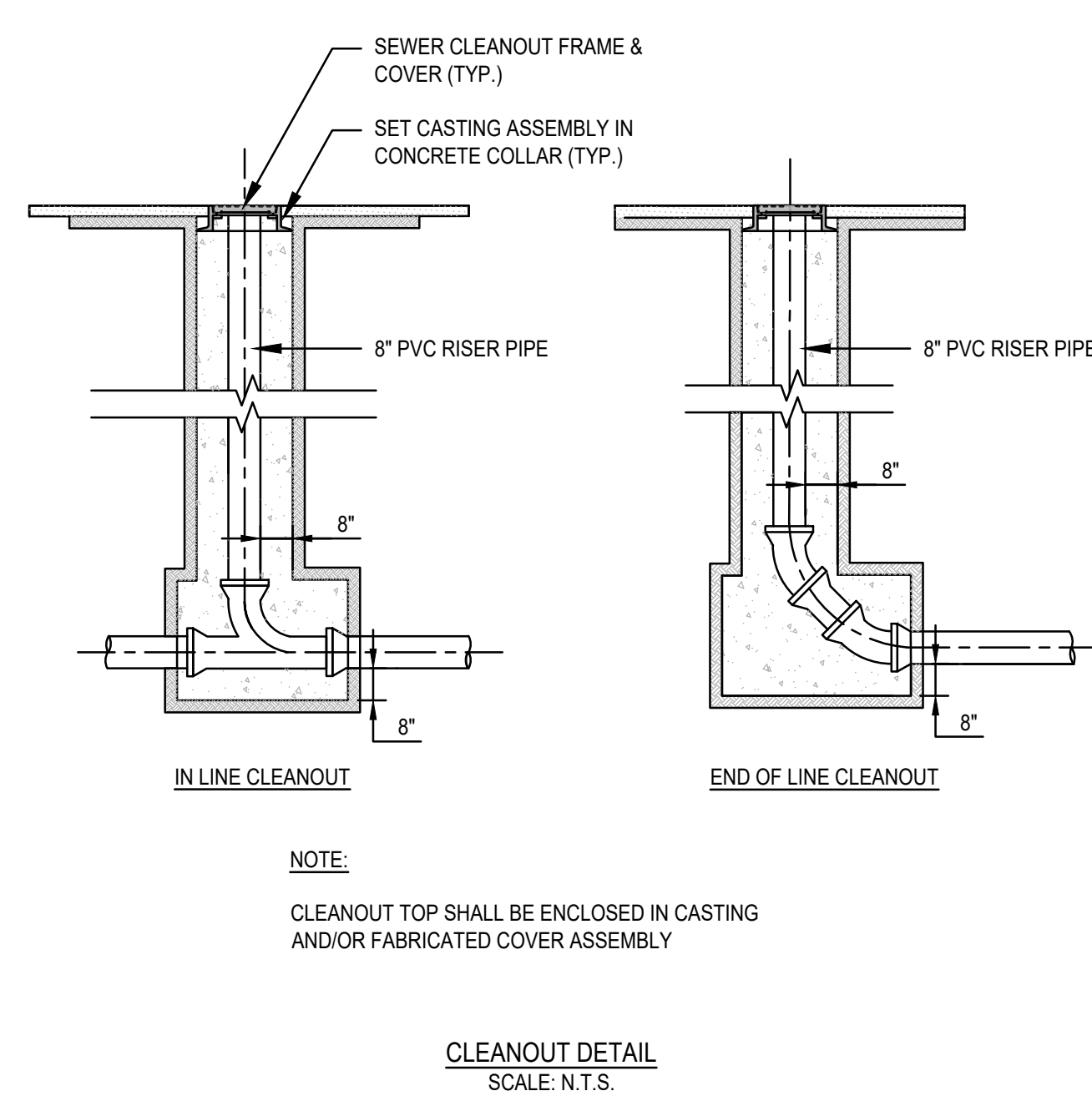
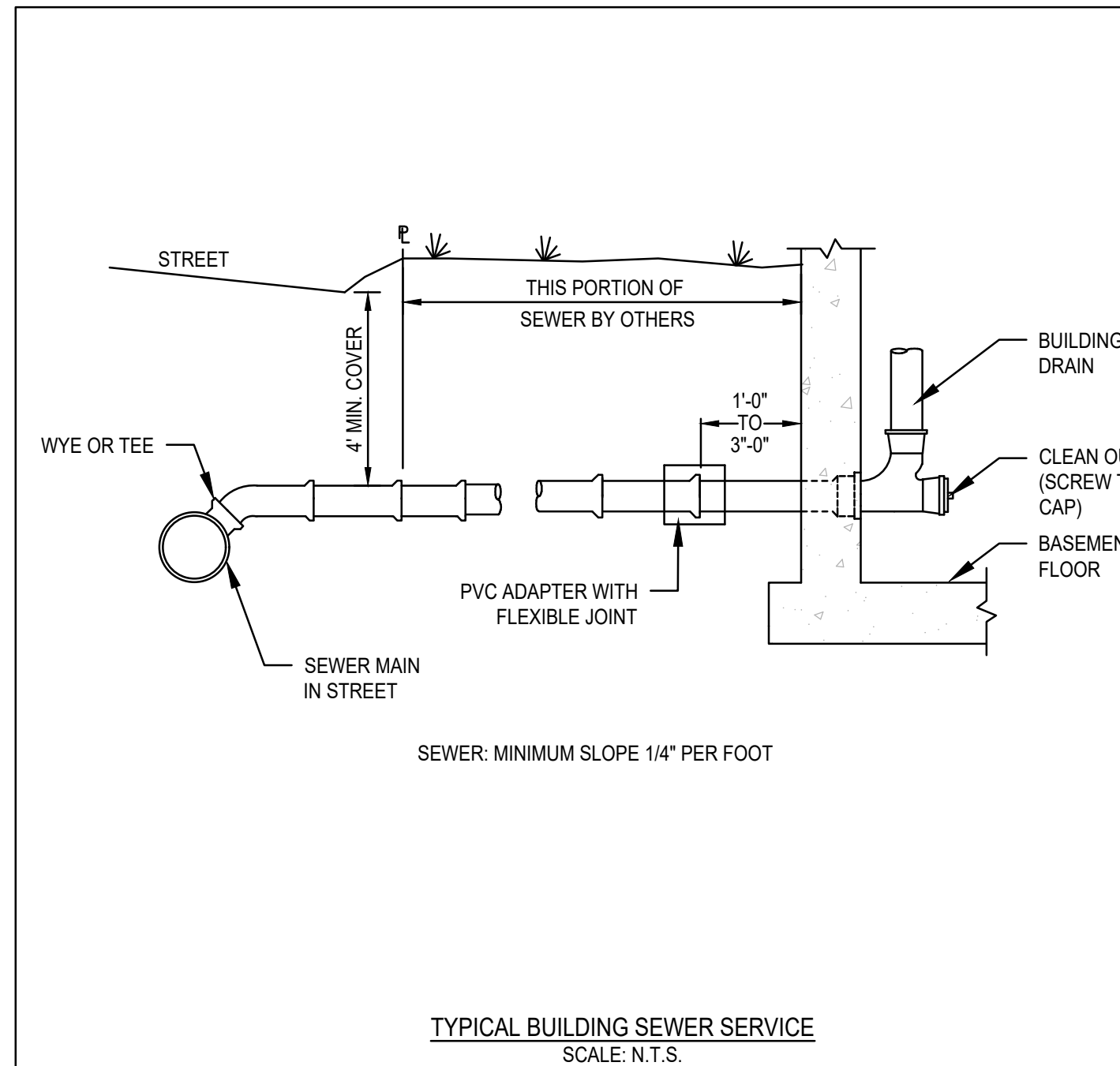
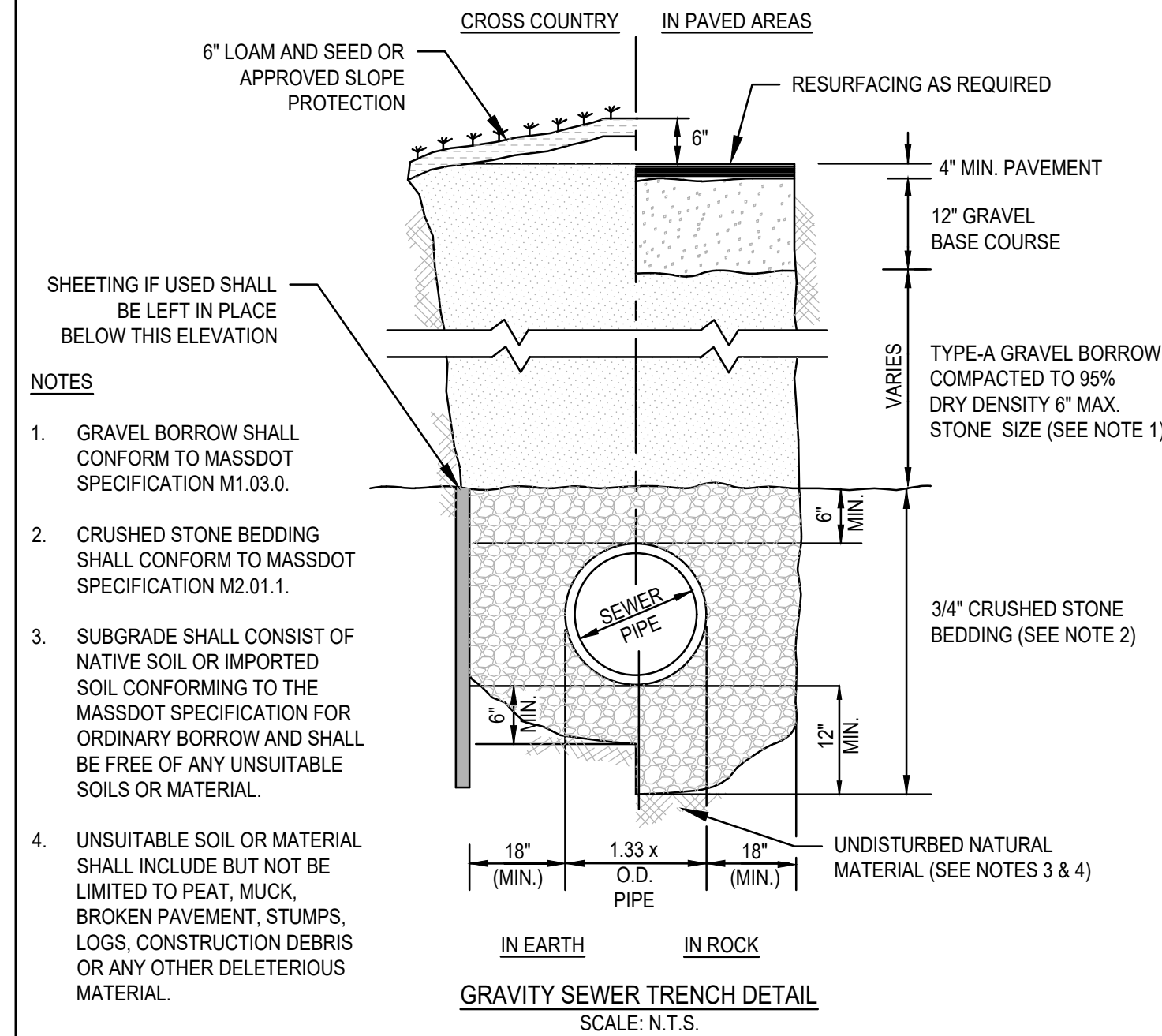
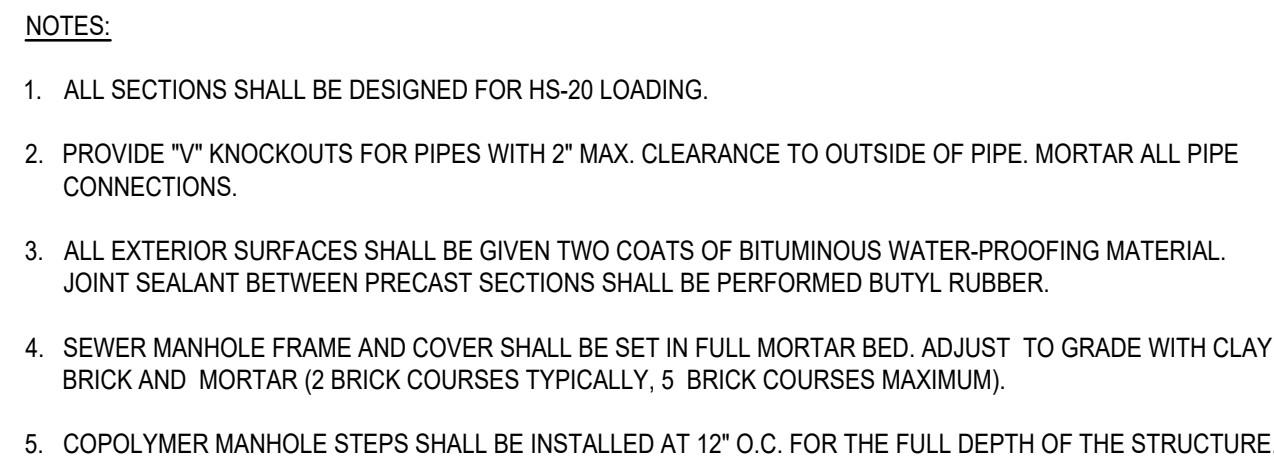
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DWG. TITLE:	

CONSTRUCTION DETAILS

DWG. NO:

D-3

[illegible]

SITE DEVELOPMENT PLANS
(ASSESSOR'S MAP 57, PARCEL 70)
320 CONCORD STREET
ROCKLAND, MASSACHUSETTS

PROFESSIONAL ENGINEER:



**WALL STREET DEVELOPMENT
CORP.**
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

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DWG. TITLE:	

CONSTRUCTION DETAILS

DWG. NO:

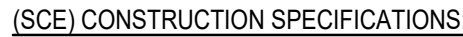
D-4

TO PREVENT EXCESSIVE EROSION AND SILTING, THE FOLLOWING CONSTRUCTION SEQUENCE COUPLED WITH OTHER WIDELY ACCEPTED PRINCIPALS FOR REDUCING EROSION AND SEDIMENTATION SHALL BE IMPLEMENTED IN THE DEVELOPMENT OF THE SITE.

- ## EROSION AND SEDIMENTATION CONTROL

- STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK BARRIER CONTROLS, STABILIZED CONSTRUCTION ENTRANCE, TEMPORARY DIVERSION SWALES WITH STONE CHECK DAMS, SEDIMENT BASINS, AND INLET PROTECTION.
- STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
- IN GENERAL, THE SMALLEST POSSIBLE AREA OF LAND SHOULD BE EXPOSED AT ONE TIME. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHALL BE CONFINED TO A MAXIMUM PERIOD OF 30 DAYS, AND SHALL BE PROTECTED BY MULCHING, SEEDING, AND TEMPORARY EROSION CONTROL MEASURES WHICH ARE TO BE LEFT TEMPORARILY AND THAT WILL BE REGRATED AT A LATER DATE SHALL BE MACHINE HAY MULCHED AND SEEDED WITH WINTER RYE TO PREVENT EROSION.

1. STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK EROSION CONTROL BARRIERS, STABILIZED CONSTRUCTION ENTRANCES, CONCRETE CURBS, STOCKPILING AREAS, AND OTHER BEST MANAGEMENT PRACTICES.
2. STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE TEMPORARY EROSION CONTROL SITE AT LEAST ONCE EVERY 7 CALENDAR DAYS OR EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT 1 INCH OR GREATER. THE INSPECTOR SHOULD REVIEW THE EROSION AND SEDIMENT CONTROLS WITH RESPECT TO THE FOLLOWING:
 A. WHETHER OR NOT THERE HAS BEEN ANY UNNECESSARILY CORRECTED
 B. WHEN OR NOT THERE HAS BEEN DAMAGE TO THE BMP SINCE IT WAS INSTALLED OR PERFORMED
 C. WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE BMP
4. THE INSPECTOR SHALL COME UPON THE PROJECT SITES FOR VISUAL EVALUATION CHECKLIST FOR FINDINGS AND SHOULD REQUEST THE REQUIRED MAINTENANCE OR REPAIR.
5. ALL SLOPES EXCEEDING 15% RESULTING FROM SITE GRADING SHALL BE BOTH COVERED WITH FOUR INCHES OF TOPSOIL AND PLANTED WITH A VEGETATED COVER SUFFICIENT TO PREVENT EROSION.



1. STONE FOR A STABILIZATION CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN A FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO LAYING THE STONE.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DEVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED PROMPTLY.

STABILIZED CONSTRUCTION ENTRANCE (SCE) DETAIL
SCALE: N.T.S.



1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING ALONG DISCHARGE PIPE
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. ENTIRE SYSTEM REQUIRED TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE. REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

FAIRCLOTH SKIMMER DISCHARGE SYSTEM W/EMBANKMENT
SCALE: N.T.S.



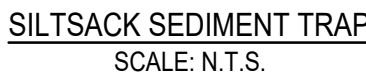
1. SILT SOCKS SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING OR LAPPING THE ADJACENT SECTIONS.
2. SILT SOCKS SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN EVERY 8 LF.
3. INSPECTION SHALL BE FREQUENT, AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS REQUIRED.
4. SILT SOCKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

SILT SOCK EROSION CONTROL BARRIER DETAIL
SCALE: N.T.S.



TEMPORARY SEDIMENTATION BASINS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO LOCATIONS SHOWN ON THE PLAN, BUT SITE CONDITION SUCH AS SOILS, POOL AREA, AND SPILLWAY CONDITIONS SHALL BE CONSIDERED. CONTRACTOR SHALL HAVE THE FLEXIBILITY TO ADJUST LOCATIONS AS LONG AS REQUIRED VOLUME IS PROVIDED.

TEMPORARY SEDIMENTATION BASIN
SCALE: N.T.S.

[illegible]

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PROFESSIONAL ENGINEER:



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CORP.
2 WARTHIN CIRCLE
NORWOOD, MASSACHUSETTS 02062

PERMIT PLAN SET

DRAWN BY:	ESS
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APPROVED BY:	BCM
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DWG. TITLE:	

CONSTRUCTION DETAILS

DWG. NO

D-5

